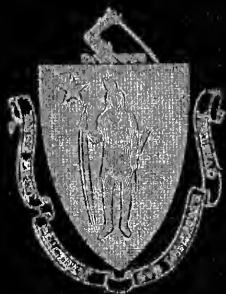


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REPORT OF  
THE HOMESTEAD COMMISSION

MASSACHUSETTS

1915

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The Commonwealth of Massachusetts.

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THIRD ANNUAL REPORT

OF

THE HOMESTEAD COMMISSION.

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1915.

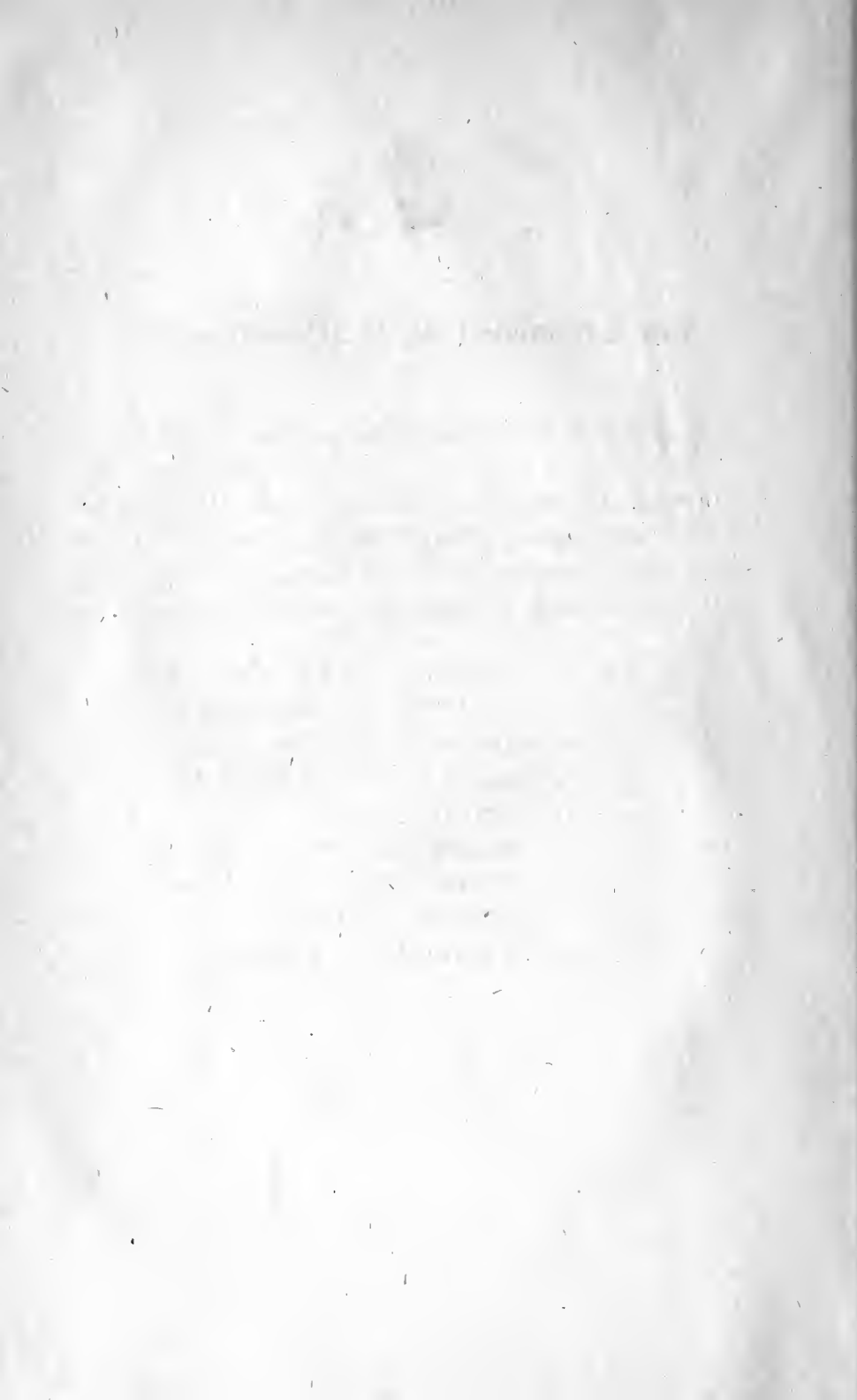


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# The Commonwealth of Massachusetts.

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*To the Honorable Senate and House of Representatives.*

BOSTON, June, 1916.

In compliance with the provisions of chapter 714 of the Acts of 1912, and chapters 494 and 595 of the Acts of 1913, the Homestead Commission, created by chapter 607 of the Acts of 1911, has the honor to submit the accompanying report and bills.

CHARLES F. GETTEMY, *Chairman.*

AUGUSTUS L. THORNDIKE.

KENYON L. BUTTERFIELD.

GEORGE CHANDLER WHIPPLE.

EVA W. WHITE.

WARREN DUNHAM FOSTER.

HENRY STERLING, *Secretary.*

ARTHUR C. COMEY.

CORNELIUS A. PARKER.



# REPORT OF THE HOMESTEAD COMMISSION.

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## 1. To provide Homes for Citizens.

An amendment to the Constitution, permitting the General Court to authorize the Commonwealth to take land and to hold, improve, subdivide, build upon and sell the same for the purpose of relieving congestion of population and providing homes for citizens,<sup>1</sup> was approved and ratified at the State election of 1915 by a vote of 284,568 to 95,148. The vote cast upon the amendment was 75.6 per cent. of the total vote, 502,146, cast for Governor at the election. The affirmative vote lacked only 876 votes of being a 3 to 1 majority. Had the 122,436 who failed to vote upon the amendment all been opposed to it, the total number opposed would have been 217,584, and the amendment would still have had a majority of 66,984 in its favor. Out of the 253 cities and towns in the State, only 23 small towns, with a total vote of 1,670, showed majorities against the amendment. In these towns the favorable vote was 750 to 920 opposed, — a majority of only 170. The highest vote cast by any one of these towns was 187, of which 104 were in opposition.

The 1915 Legislature had approved the amendment in the Senate by 28 yeas and 7 nays, in the House by 193 yeas, 14 nays. In the 1914 Legislature the vote was 33 in favor, 3 opposed, in the Senate; in the House, April 10, 182 to 0; May 29, 191 to 2.

The emphatic approval of this amendment by both the voters and the legislators appears to justify the Homestead Commission in returning to its original instruction, as embodied in chapter 607 of the Acts of 1911, namely, to report —

---

<sup>1</sup> The general court shall have power to authorize the commonwealth to take land and to hold, improve, subdivide, build upon and sell the same for the purpose of relieving congestion of population and providing homes for citizens: *provided, however*, that this amendment shall not be deemed to authorize the sale of such land or buildings at less than the cost thereof (Constitutional Amendment ratified November 2, 1915).

a bill or bills embodying a plan and the method of carrying it out, whereby with the assistance of the commonwealth homesteads, or small houses and plots of ground, may be acquired by mechanics, factory employees, laborers and others in the suburbs of cities and towns.

Therefore, the Homestead Commission brings to the General Court a bill (House 513, 1916) for a moderate, conservative, carefully conducted experiment, or demonstration, in order that experience may show what the Commonwealth may do along these lines with safety to itself and benefit to the public.

The first section of the bill authorizes the Homestead Commission, by and with the consent of the Governor and Council, to acquire and develop a tract or tracts of land for the purpose of providing homes for citizens.

The second section authorizes the Commission to sell such tract or tracts of land, or portions thereof, with or without buildings thereon, on terms and conditions to be approved by the Governor and Council, subject to the provision that no land shall be sold for less than its cost. The Commission construes "cost" to include for each lot a proper proportion of all overhead expenses. All receipts are to be paid into the treasury of the Commonwealth.

The third section limits the amount of the money that may be used for this purpose.

In the provisions of the bill the Homestead Commission has sought to conform carefully to the requirements of the constitutional amendment, and to the apparently overwhelming will, both of the voters and of the General Court.<sup>1</sup> The full text of this bill is as follows:—

AN ACT TO AUTHORIZE THE HOMESTEAD COMMISSION TO PROVIDE HOMESTEADS FOR CITIZENS.

*Be it enacted, etc., as follows:*

SECTION 1. The homestead commission is hereby authorized, by and with the consent of the governor and council, to take or purchase in behalf of and in the name of the commonwealth, a tract or tracts of land for the purpose of providing homesteads, or small houses and plots of ground, for mechanics, laborers, wage earners, or others, citizens of this commonwealth, and may hold, improve, subdivide, build upon, sell, repurchase,

---

<sup>1</sup> Rejected.

manage and care for said tract or tracts and the buildings constructed thereon, in accordance with such terms and conditions as may be determined upon by the commission, subject to the approval of the governor and council.

SECTION 2. The commission may sell said tract or tracts or any portions thereof, with or without buildings thereon, for cash, or upon such installments, terms and contracts, and subject to such restrictions and conditions, as may be determined upon by the homestead commission and approved by the governor and council; but no tract of land shall be sold for less than its cost, including the cost of any buildings thereon. All proceeds from the sale of land and buildings or other source shall be paid into the treasury of the commonwealth.

SECTION 3. The homestead commission is hereby authorized to expend not to exceed fifty thousand dollars for the purposes of this act.

SECTION 4. This act shall take effect upon its passage.

## **2. Teaching Agriculture to Families.**

Nevertheless, the Commission apprehends that great waste would result, and possibly danger to the homestead movement might arise, if many persons inexperienced in the care and management of the soil were put in possession of "small houses and plots of ground," as contemplated in the act under which the Homestead Commission was created. The successful practice of agriculture, even in a small way, is a profession to be learned as is any other profession. Inexperienced persons often fail to make a profit from land. Yet it is vital to the progress and well-being of the Commonwealth that all who desire to get nearer to the soil, whether for a more wholesome and healthful environment for themselves and their families, or for a profitable employment for spare time, or for the means of a livelihood, should have opportunity to do so. Only a few, however, of those who desire such an opportunity are equipped with the knowledge and experience required for success. The sensible and logical proposition in relation to the "back-to-the-soil" movement seems to be to teach those who want to go back how to make a living when there. Family groups and individual old or young, who think they would like to learn to practice agriculture should have the opportunity. If such an opportunity can be given with little or no expense to the community or Commonwealth, and possibly with financial advantage to the learner, it is a costly mistake to with-

hold it. The problem thus becomes largely an educational one. It is necessary that we provide for city dwellers opportunity to learn agriculture.

Therefore the Homestead Commission recommends also the passage of a bill (House 514, 1916<sup>1</sup>) permitting cities and towns to teach agriculture to families and individuals. In certain cases, where a family has no access to land to give effect to the instruction in agriculture, it might be necessary to provide for the temporary use of land, and even, possibly, in some instances, the use of a house for temporary occupancy might be required. The purpose of the bill recommended is to give to persons or family groups the opportunity of learning some practical phase of agriculture, so that as many as are willing may be equipped to make the most profitable use of a suburban or rural home. If enacted by the Legislature, the bill would take effect in a city or town only after a favorable vote by the citizens. Provision is made in section 2 for thorough publicity, and proceedings may stop at once if no great local demand is shown for the proposed instruction. Even with publicity, a favorable vote and a public demand the whole matter is left, by section 4, to the discretion of the local school committee, subject to the approval and supervision of the State Board of Education (section 1).

Section 1 of the bill authorizes any city or town which accepts the act to undertake the kind of instruction proposed, but subjects the location and organization of the school to the approval of the State Board of Education.

Section 2 provides for thorough local publicity in regard to the purpose and scope of the proposed agricultural school. It also makes provision for a list of those desiring such instruction and information regarding them. If in any particular city or town no great demand were shown, the community would be under no obligation to proceed.

Section 3 provides for acquiring the necessary land.

Section 4 provides for the construction and occupancy of necessary buildings.

Section 5 makes provision for the submission of the whole matter to the voters. The full text of this bill is as follows:—

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<sup>1</sup> Amended and enacted as chapter 185, General Laws, 1916. See Appendix.

AN ACT TO PROVIDE FOR THE ESTABLISHMENT AND MAINTENANCE OF  
AGRICULTURAL INSTRUCTION FOR FAMILIES.

*Be it enacted, etc., as follows:*

SECTION 1. Any city or town which accepts the provisions of this act may establish and maintain schools for teaching to families and to individuals, in day, part time and evening classes, gardening, fruit growing, floriculture, poultry keeping, animal husbandry, and other branches of agriculture and horticulture, subject to approval by the board of education. The location and organization of such schools shall also be subject to the approval of the board of education.

SECTION 2. After the acceptance of this act and before taking further action thereon the school committee shall cause to be circulated a general description of the purposes and scope of the schools herein provided for, with request for information regarding those desiring such instruction.

SECTION 3. The city council or other board of officers in cities in whom is vested the power to take land for school purposes, or the inhabitants of a town, may vote to take in fee any land not appropriated to public uses for the purpose of maintaining said schools, or may lease or purchase in fee any land, either within or without the city or town limits, for said purpose.

SECTION 4. The school committee of said city or town may erect suitable school buildings upon said land, and may make provision, on terms that will not involve loss to the city or town, for houses and plots of ground for the temporary use of families attending the school and complying with its regulations, who have not access to other land suitable to give proper effect to the instruction of the school.

SECTION 5. This act shall be submitted to the voters of each of the cities and towns of the commonwealth at the next annual state election for their acceptance or rejection, and shall take effect in any city or town if a majority of the voters voting thereon shall vote in the affirmative. For the purpose of being submitted to the voters, as aforesaid, this act shall take effect upon its passage.

### **3. Some Reasons for the Recommendations.**

In making these recommendations the Homestead Commission does not feel that it is necessarily placing any new or added burden upon the taxpayers, beyond the usual cost of instruction. Each homestead project should be self-supporting. Careful advance study would show the probable cost and income of each undertaking, and no project should be begun unless it seems to be sure that the income will equal or exceed the necessary outgo. This accords with the best practice

abroad. The Homestead Commission, on page 136 of its first annual report, set forth briefly the London County Council's method of dealing with housing propositions, as follows:—

The council decided that the rents for its erected tenements should not exceed those ruling in the neighborhood, but should provide for all expenses, interest and sinking fund chargeable to the property. In order that the council, before committing itself to the erection of dwellings on any particular spot, may rightly judge whether those financial conditions may be met, sketches are prepared to show the general arrangement and character of the proposed tenements. The gross income that may be expected from the proposed tenements is then estimated on the basis of the rents ruling in the neighborhood. All expenses, including a contribution to a repairs fund, are then deducted from the estimated income, to learn what net income may be expected. The amount upon which this net income will pay interest and sinking fund charges is then calculated. The value of the site for housing purposes is then deducted, and the remainder is the sum for which the dwellings must be erected.

It is true that not all the efforts to aid working people to acquire wholesome homes have been carried through without cost to the taxpayers. In Ireland about 50,000 cottages with small plots of ground have been provided, mostly for agricultural laborers, and numerous estates have been acquired, subdivided and made easily available to small users. Many of these operations were subsidized from the imperial treasury, and some of the cottages are rented at less than the carrying charges, the deficit being made up by local taxation. In some of the larger English cities improved tenements have been erected and are rented for less than enough to pay interest, taxes and other fixed charges. Besides this, cities have bought large areas of valuable property which had been condemned as unhealthful, have razed the buildings, made new layouts and restrictions, and then have fixed a new valuation on the land, to conform with the less intense uses to which it was to be put. Of course the difference between the new valuation and the original cost is a money loss to the community. These are the principal incidents where the provision of a larger supply



of wholesome homes for working people has added to the burdens of the taxpayers. The expense was foreseen and deliberately undertaken, in the expectation that the social and economic benefits resulting would more than offset the cost.

On the other hand, so far as we have been able to learn, the work of making more ample provision for healthful homes for the people by the use of public funds or credit has been going forward, without cost to the public treasury, in Austria, Hungary, Roumania, Finland, Germany, Norway, Sweden, Denmark, Holland, Belgium, France, Italy, Spain, England, Scotland, Ireland, the six Australian States, New Zealand, Argentina, Brazil, Chile, Cuba.<sup>1</sup> The land transactions of the colony of New Zealand up to the close of the fiscal year ended March 31, 1914, show a favorable balance of £64,297, while its advances to settlers show a net profit for the year of £84,894. In its neglect of this fundamental work, the United States is almost alone among leading progressive nations.

The recommendations of the Homestead Commission being somewhat unusual in character, careful discussion and justification are both fitting and necessary.

The creation of the Homestead Commission implies, of course, certain acute conditions existing which ought to be cured, and for which no adequate relief can be found in any of the usual methods. It is the duty of the Commission, therefore, to indicate by what feasible, practicable means the bad housing conditions existing in many parts of many communities may be relieved. In the following pages, accordingly, the Commission discusses —

1. The need of a larger supply of wholesome homes.
2. Whether that need may be met by private enterprise and initiative.
3. The opportunities for a larger supply of wholesome homes.
4. The demand for, location, cost and kind of homes needed.
5. Results which may be expected, communal and individual.

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<sup>1</sup> For detailed accounts of these activities, see the Homestead Commission's first annual report, and also Bulletin No. 158, Bureau of Labor Statistics, United States Department of Labor, Washington, D. C.

#### 4. Need of More Wholesome Homes.

(1) There are certain facts of common knowledge which need careful consideration:—

Many thousands of families live in habitations too closely crowded together upon the land and overcrowded by occupants.

Such habitations usually lack fresh air, sunlight, personal privacy and reasonable sanitary accommodations.

Such an environment tends to produce —

Disease: personal and public, especially tuberculosis and bad-air diseases.

Inadequate development: physical and mental.

Individual demoralization: particularly juvenile delinquency.

Inefficiency: industrial, individual and social.

Thousands of babies are dying annually unnecessarily.

Thousands of children are growing up under blighting conditions.

Such congestion of buildings upon land and people in buildings is therefore a constant menace to the general health and well-being of the community and the Commonwealth, and is an incalculable waste, both personal and public.

The existence of such conditions seems to be entirely unnecessary, inasmuch as, near to such congested places, are always to be found ample supplies of unused land and capital.

These are some of the facts that show the need for more and better homes.

Proper housing in wholesome habitations is essential to the welfare of the Commonwealth. Without it progress halts. It makes a world of difference whether children play in green fields or in paved, busy, congested streets. It means much to the future whether they work in the open air or in closed factories. Great losses in health, morality and economic efficiency result from rearing children in insanitary tenements located in overcrowded neighborhoods.

#### (2) INCREASING TENEMENT-HOUSE POPULATION.

The need for a larger supply of wholesome homes in Massachusetts is seen in the marked increase in the tenement-house population, as shown by the tendency of the people to herd

together in multiple dwellings.<sup>1</sup> An increasing number of persons per dwelling means that a constantly increasing proportion of the people are becoming tenement-house dwellers. Comparing the number of persons per dwelling in this State with the number of persons per dwelling in other States, according to the thirteenth United States Census, only two States with a higher rate of persons per dwelling are found. Moreover, one-third of all the cities which have more than 8 persons per dwelling are to be found in Massachusetts.

The average number of persons per dwelling in the United States is 5.2. Five States, however, New York, Rhode Island, Massachusetts, New Jersey and Connecticut, far exceed these figures, as shown in the table below.

TABLE 1. — *Average Number of Persons per Dwelling in Five States in 1910, 1900, 1890.*

	AVERAGE NUMBER OF PERSONS PER DWELLING.			Pop- ulation, 1910.
	1910.	1900.	1890.	
New York, . . . . .	7.7	7.0	6.7	9,113,614
Rhode Island, . . . . .	6.8	6.3	6.6	542,610
Massachusetts, . . . . .	6.6	6.2	6.3	3,366,416
New Jersey, . . . . .	6.2	5.9	5.8	2,537,167
Connecticut, . . . . .	6.1	5.7	5.7	1,114,756

In the Nation as a whole, the number of persons per dwelling shows a small but constant decline, from 5.6 in 1890 to 5.2 in 1910. But these 5 States show an opposite course. Instead of a decrease in the number of persons per dwelling, Massachusetts records an upward tendency, from 6.3 in 1890 to 6.6 in 1910. This shows an increase of tenants and tenements and a decrease of homesteads, — a tendency dangerous to the welfare of a community. These 5 are the only States in which the number of persons per dwelling exceeds 6. Omitting these, the average for the rest of the States is only 4.8 persons per

<sup>1</sup> In the following pages the word "dwelling" is used with the same meaning as in the United States Census reports, that is, any building occupied as a habitation by a person or family, or by any number of persons or families. By "tenement" is meant a room or rooms in a multiple dwelling, intended to be occupied by one family. By "apartment" is meant a better grade of tenement. "Homestead" is used in the same sense that it has in the law creating the Homestead Commission (ch. 607, 1911), — "small houses and plots of ground."

dwelling. Aside from these 5 States only 9 show an average of more than 5 persons per dwelling.

Massachusetts cities make an even poorer showing in regard to the number of persons per dwelling, when compared to the other cities of the country, than does the State when compared with other States. Except for New York and New Jersey, Massachusetts shows the worst examples of tenement-dwelling cities. The table below gives the cities in which the number of persons per dwelling exceeds 8. Seven of these 21 cities are found in Massachusetts.

TABLE 2. — *Average Number of Persons in Excess of 8 per Dwelling in 21 Cities, 1910, 1900, 1890.*

	AVERAGE NUMBER OF PERSONS PER DWELLING.			Pop-ulation, 1910.
	1910.	1900.	1890.	
Hoboken, N. J., . . . . .	15.9	14.2	12.8	70,324
New York City, . . . . .	15.6	13.7	12.9	4,766,883
Holyoke, . . . . .	11.9	10.9	11.3	57,730
Fall River, . . . . .	10.9	11.0	11.2	119,295
Passaic, N. J., . . . . .	10.7	9.0	7.6	54,773
Yonkers, N. Y., . . . . .	10.2	9.0	8.6	79,803
Worcester, . . . . .	9.7	9.0	8.7	145,986
Jersey City, N. J., . . . . .	9.6	8.7	8.8	267,779
Waterbury, Conn., . . . . .	9.5	8.3	8.3	73,141
New Britain, Conn., . . . . .	9.3	7.8	7.9	43,916
Boston, . . . . .	9.1	8.4	8.5	670,585
Chelsea, . . . . .	9.1	6.6	6.2	32,452
Woonsocket, R. I., . . . . .	9.1	9.1	9.5	38,125
Bayonne, N. J., . . . . .	9.0	7.4	7.1	55,545
Newark, N. J., . . . . .	9.0	8.1	7.8	347,469
Chicago, Ill., . . . . .	8.9	8.8	8.6	2,185,283
Hartford, Conn., . . . . .	8.6	8.2	8.1	98,915
New Bedford, . . . . .	8.4	7.1	6.7	96,652
Lewiston, Me., . . . . .	8.3	8.0	8.5	26,247
Lawrence, . . . . .	8.2	7.7	7.7	85,892
Manchester, N. H., . . . . .	8.1	7.7	8.3	70,063

Omitting these 21 cities, the average number of persons per dwelling is 5.4 for the rest of the cities in the United States with a population of 25,000 or more, but the average for the remaining 16 Massachusetts cities with a population in excess of 25,000, named in the table below, is 6.6.

TABLE 3. — *Average Number of Persons per Dwelling in 16 Massachusetts Cities with a Population Over 25,000, 1910, 1900, 1890.*

	AVERAGE NUMBER OF PERSONS PER DWELLING.			Pop- ulation, 1910.
	1910.	1900.	1890.	
Fitchburg, . . . . .	7.8	6.8	6.4	37,826
Chicopee, . . . . .	7.7	7.0	6.9	25,401
Salem, . . . . .	7.4	6.8	6.8	43,697
Cambridge, . . . . .	7.2	6.9	6.8	104,839
Lowell, . . . . .	7.1	6.9	7.2	106,294
Brockton, . . . . .	6.9	6.0	6.5	56,878
Lynn, . . . . .	6.8	6.2	6.5	89,336
Springfield, . . . . .	6.7	6.1	6.4	88,926
Somerville, . . . . .	6.4	5.7	6.1	77,236
Taunton, . . . . .	6.3	6.2	6.3	34,259
Haverhill, . . . . .	6.0	5.8	6.6	44,115
Everett, . . . . .	6.0	5.4	5.3	33,484
Malden, . . . . .	6.0	5.3	5.6	44,404
Waltham, . . . . .	5.9	5.4	5.6	27,834
Pittsfield, . . . . .	5.5	5.2	5.5	32,121
Quincy, . . . . .	5.3	5.3	4.8	32,642

These figures seem to show that Massachusetts is increasing its number of tenement-house dwellers faster proportionately than its general population is increasing, while in the whole country the proportion of tenement dwellers seems to be decreasing.

### (3) POPULATION OF TENEMENTS.

Reliable statistics regarding the number of families and persons living in rented tenements are difficult to obtain. Enumerations of the population of blocks and districts and the results of various "social surveys" have been printed, but only one official census of the tenement-house population of any city in Massachusetts has been published. There seems never to have been any attempt to make an *accurate* enumeration of those living in *unwholesome* tenements. Possibly the only reliable figures on the number of tenement dwellers, and the number of those living in unwholesome tenements, date back to 1891, when, in compliance with the provisions of a special act (chapter 115, Resolves of 1891), the State Bureau of Statistics made a tenement-house census of Boston. Among other things which that census showed were the number of families

and persons residing in rented tenements, the number of rooms, the average number of persons to each room, and the sanitary condition of the tenements.

The population of Boston for 1890 was 448,477, as given by the eleventh United States Census. The Bureau of Statistics estimated the population in 1891 to be 464,751. The tenement-house census (page 539) found 311,396 persons living in rented tenements and 27,512 in boarding houses, together making 338,908 persons, or 73 per cent. of the entire population, living in rented tenements and boarding houses.

#### (4) UNWHOLESOME, OVERCROWDED TENEMENTS.

*Boston.* — Some of the tenements occupied were unhealthful places of abode. The Boston tenement-house census (page 69, Report Statistics of Labor, 1892) gives 38,311 persons, or 8.24 per cent. of the total population of the city, as the number then living in unclean, unsanitary tenements, besides 26,201 persons in tenements where the ventilation was poor, 26,097 living where light and air were deficient, and 37,613 inhabitants of tenements with poor or bad outside sanitary conditions. These figures cannot be added together to find the total number of people living in unfit dwellings, for in the numbers given occur many duplications. For instance, a tenement ranking as poor or bad in regard to sanitary conditions might also be lacking in light and air; ventilation and the outside sanitary conditions might also be bad. Its tenants might thus be enumerated in each of the four classifications. No effort seems to have been made to eliminate these duplications, and so the tenement-house census fails to reveal the real number of persons living in dwellings that were poor or bad. The number of tenants who lived in unclean tenements, 38,311, is far lower than the actual number of persons occupying unhealthful dwellings, for it excludes all the tenements condemned under the other classifications, unless those tenements are condemned also as unclean. However, it is the only figure that can with certainty be used. There were at that time 1,053 families, comprising 2,067 persons, living in tenements consisting of one room each, or 1.96 tenants to a room.

The foregoing exhibit of conditions in the principal city of

the Commonwealth would seem to be a sufficient answer to the question whether a more ample supply of wholesome homes is needed. These conditions existed in 1891. Are they better to-day? Twenty-five years ago agitation against unwholesome habitations had proceeded far enough to secure an extended, thorough and costly investigation in order to learn what the evils at that time actually were. Have the subsequent years, filled with agitation and sacrificing effort, wrought a cure or even brought any measurable relief? It is with regret that we feel compelled to answer in the negative. New building laws have been passed, but the main fact shown by their operation is that they are inadequate. The number of health inspectors and inspections has been increased, but the most inexperienced amateur can still easily find conditions so bad as to be appalling.

In 1891 the tenement-house census found 583 families, comprising 1,805 persons, living in cellars and basements (page 134, Report Statistics of Labor, 1892), but the department of housing of the Women's Municipal League during the winter of 1913-14 stated that over 1,600 basement and cellar tenements were known to be occupied for living purposes, thus indicating an enormous increase in the number of cellar and basement dwellers.

Figures convey to the mind no adequate idea of actual living conditions in congested districts. It is impossible for the imagination to grasp from statistics the depth of squalor in which some unfortunate people live. Herewith are a few pictures of the surroundings of some basement-tenement dwellers, of whom there seems to be so marked an increase. The photographs are of recent date. They depict phases of Boston life which could and soon would be unknown if the public insisted upon their abolition.

In November of last year a Metropolitan Council of Fifty, in connection with the annual conference of the town and city planning boards called by His Excellency the Governor and the Homestead Commission, gave in the State House possibly the most extensive city planning and housing exhibit yet held in the United States. Plans, maps, illustrations, pamphlets and books filled twelve large rooms. The exhibition continued

through eight days with an attendance conservatively estimated at more than 50,000, far exceeding the highest expectations. City planning was illustrated by numerous motion and stereopticon pictures, both day and evening. Its various phases were discussed by capable speakers.

In connection with the planning exhibit the Women's Municipal League, through its department of housing, presented a photographic display of some conditions actually now existing in Boston, particularly in cellar and basement tenements. The urgency of more and better places of abode for families of limited means is particularly emphasized when it is considered that these pictures illustrate conditions of life suffered by hundreds of families. If pity and sympathy are not enough to bring about the abolition of these conditions, a consideration of the effect upon future generations, upon public health and upon the quality of citizenship should insure a better opportunity for the victims of such an environment.

On the opposite page is shown a photograph (A) of the kitchen of one of these basement tenements. The bed, upon which the children are seated, shows the width of the room. It fills the entire space at that end. A lamp is kept lighted all day, as the only daylight penetrating the room is from one window in the far corner, at the foot of the bed. Even at noon there was only a faint ray of light coming in this window, which opens on a 4-foot excavated yard. The room never gets any sunshine. The entire tenement, consisting of two rooms, rents for \$6 or \$7. The front room, used as a bedroom, is so far below the street level as to have a grating in the sidewalk. In it there were three beds, which left no room in which to walk around without moving one of the beds. There were a father, mother, grandmother and four children, one of the latter unable to walk, occupying this tenement of two rooms, — a bedroom and a kitchen. The bedroom in winter was bitterly cold with no way of heating.





(A) Boston is rearing Children in Basement Habitations like this.



(B) Sleeping-place for Father, Mother and Child.



(C) A Basement Tenement Kitchen and Bedroom combined.

Another tenement of three rooms was pictured (B). A so-called room in this tenement is merely a large-sized closet with slanting ceiling, located under the main entrance stairs of the building. Here in a three-quarter bed sleep the father, mother and a little child. The rest of the family sleep in the front room and the kitchen. This room has absolutely no light or ventilation.

(C) shows the kitchen of another two-room basement tenement. It is reached by way of a passage from the street between two buildings, down several steps which take one to the yard, from which the building is entered at the rear. The curtain of one of the windows has been raised to show the pasteboard tacked on the sash where the glass is lacking. The bedroom at the rear of the kitchen has absolutely no ventilation to the outside air. There is a double bed in the bedroom.

A sample hallway is shown in (D) and (E). (D), looking from the door of the tenement, shows the rear part of the hallway of a cellar tenement reached by a covered passageway. Note the condition of the plaster, — the rot caused by dampness. The inside of the tenement is as bad or worse, except that wainscoting has been placed over some of the worst rotted places. The hallway is pitch dark, and is strewn with rubbish and débris.

(E) shows another part of the same hallway and the door to the tenement. In the unsanitary, out-of-repair water-closet the ceiling plaster had fallen on account of the leaking plumbing above, and the floor and seat were wet and soggy, — a common condition among these cellar water-closets. It is located close to the main entrance to the tenement. Near by are the milk bottles recently emptied by the family, and the probe used to empty the closet.

The investigators found conditions in the basement tenements so bad that the committee sought legislation to regulate this type of tenement. The bill presented to the General Court aimed to close unfit basement and cellar tenements for living purposes. The words "living purposes" were finally changed to "sleeping purposes," in so far as they applied to these unwholesome places, — an alteration that largely vitiated the value of the act. The law was to take effect in October,

but opposition to it was so strong that its enforcement was delayed, and in 1915 its provisions were so modified that no basement room may be occupied for sleeping purposes without a written permit from the health department, as a guarantee of fitness.

The enforcement of this measure by the Boston health department is difficult. Nearly all the basement and cellar tenements in the city have been investigated and reported upon. About 100 have been vacated, and many cases are in court. Some owners have been fined, but they immediately appealed and the cases are pending. Some cases have been in court as many as three times. Few of the tenements can be rehabilitated. Nearly all have to be vacated and used for some other than sleeping purposes. A great difficulty met with is that where basements and cellars have been vacated and left unoccupied for a while, the property is sold. The new owner is supposed to have no knowledge of the order to vacate, and the inspectors later find the tenement reoccupied.

Notwithstanding such exhibits as the foregoing, there are some who think that conditions are not now as bad as they were at the time of the taking of the tenement-house census of 1891-92. Certain it is that some betterments have been made through the efforts of the board of health and the building and other authorities; and by the passage since that date of much legislation to regulate the construction, alteration and maintenance of buildings in Boston many unwholesome dwellings which then existed have been torn down, or repaired and made more habitable. Unfortunately, however, other buildings have deteriorated, and there has been little or no restriction in regard to the overcrowding of buildings upon land; so many social workers and others intimately acquainted with conditions as they exist to-day believe that there are places in Boston occupied as dwellings in which conditions are as bad as they were when the tenement-house census was taken, and that the number of such places is probably not less than in that earlier day. If progress has been made, it is not so great as to warrant boasting. It would indeed be discouraging to believe that after all the money and labor expended in the last twenty years on attempts to improve the living conditions in



(D) Not an Inspiring Approach to a Place of Abode.



(E) Another Part of the Hallway shown in (D).

Boston they were found to be no better than before; yet it would be difficult to show wherein a general widespread improvement has been made. Concentration of population, especially of the poor, has proceeded rapidly in these years. Where such concentration has occurred it is almost impossible to bring or keep the habitations of the poor up to a decent livable standard.

Before the tenement-house census an important investigation into tenement-house conditions in Boston had been made by Prof. Dwight Porter of the Massachusetts Institute of Technology, and published in 1888. In 1895 an investigating committee of the common council reported that the tenement houses in the North End were a serious menace to public health. The Twentieth Century Club, in 1898, through Mr. Harold K. Estabrook, carried out an exhaustive investigation of living conditions among the poor. The State Bureau of Statistics of Labor issued in 1899 (Bulletin No. 11) a report making comparisons of conditions in certain districts with its census of 1891-92, showing no material change. In 1904 a tenement-house commission, appointed by Mayor Collins, reported the existence of wretched conditions. In 1910 the housing committee of Boston's 1915 movement again investigated the housing conditions and congested population in certain parts of Boston. In 1913, in support of its recommendations, the Homestead Commission summarized and amplified the previous reports. The Women's Municipal League has published a bulletin covering the conditions brought to light during five years of inspection, ending with 1915, of its department of housing. The sum of all these publications leaves the question in doubt as to whether, on the whole, the housing conditions of the poor in Boston have materially changed for the better.

On pages 12 and 13 of a report made to the Legislature of 1913 by the Homestead Commission (House 2000, 1913) appear tabulated statements showing increases in density in the various wards of the city of Boston between the years 1905 and 1910. No later statistics on this point are available, for the ward lines were changed before the State Census of 1915 was taken.

According to these tables the density of population on occu-

pied land in Ward 2 had risen in those five years from 114.6 to 122.7 persons per acre, an increase of 7.1 per cent.

In Ward 5 the density on occupied land had risen from 134.2 to 140.9, an increase of 5 per cent.

In Ward 6 the density of population on occupied land had risen from 208.7 to 230.8, an increase of 10.6 per cent.

In Ward 8 the density of population on occupied land had risen from 375.2 to 395, an increase of 5.3 per cent.

In Ward 9 the density of population on occupied land had risen from 212.9 to 257.1, an increase of 20.8 per cent.

In Ward 12 the density of population on occupied land had risen from 206.6 to 231.4, an increase of 12 per cent.

In Ward 15 the density of population on occupied land had risen from 162.7 to 168.1, an increase of 3.3 per cent.

In Ward 16 the density of population on occupied land had risen from 100.2 to 105.7, an increase of 5.5 per cent.

In Ward 18 the density of population on occupied land had risen from 183.4 to 198.6, an increase of 8.3 per cent.

In Ward 19 the density of population on occupied land had risen from 129.2 to 142.1, an increase of 10 per cent.

In 1905, in Wards 6 and 8, lived 60,797 persons, more than one-tenth of the total population of the city, on less than one-fiftieth of its area. In 1910 the population of these two wards had increased to 68,188, which means that 7,391 more persons had crowded into the space already overpopulated, — an increase of 12 per cent.

The *tenement districts* of the North and West Ends, with a population in 1905 of 44,001 on 103.1 acres, had a density of population of 427 persons per acre. These Boston districts are said to be more densely populated than any portion of any other American city or district, excepting certain districts in New York.

Seven single North and West End blocks had in 1905 from 1,017 to 1,174 inhabitants, each a fair-sized town.<sup>1</sup> As numerous blocks here, however, cover less than an acre, those with smaller population are often very crowded. Of 22 blocks, 4 had less than 500 persons per acre, 4 between 500 and 600, 9 between 600 and 720, 4 between 786 and 880, and 1, Block

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<sup>1</sup> There were 90 towns in Massachusetts in 1905 with a population of less than 1,000.



No. 33, bounded by Prince, Thacher, North Margin streets, and Lafayette Avenue, was, so far as known, the most densely populated block in Boston; it had 956 residents on .84 acre, or 1,138 per acre. They lived in houses averaging three and two-thirds stories high, or 310 persons per acre per story. New York's most crowded block in 1905 had 1,672 persons per acre in houses averaging five and one-half stories, or 304 per acre per story.<sup>1</sup>

The 956 persons on this North End block lived in 403 rooms according to a careful count, an average of 2.37 persons per room, including all but halls, bathrooms and closets, and supposing all rooms on the block occupied. New York, for a considerable number of rooms, has found at the most 1.78 persons per room. Thus the crowding on this block was 33 per cent. greater than in New York. The conditions on this block may be extreme. In our North and West Ends and South Cove in 1908 the Immigration Commission found an average of 144 persons per 100 rooms occupied, as compared with 139 in New York's immigrant districts, and from 115 to 141 in five other large cities.

In the bedrooms conditions are still worse. In 1910 the investigators for the 1915 movement found in 5 blocks together 2,126 persons in 891 bedrooms, an average of 239 per 100 bedrooms. The report states that these conditions are typical for 44,000 or more inhabitants of the North and West End tenement districts.

Whether or not the number of dwellers in unwholesome tenements in Boston has decreased, either in actual numbers or in proportion to population; whether or not there are less or more of such tenements than there were twenty-five years ago; and whether or not conditions within the tenements have improved or grown worse, it is certain that there is enough unwholesome housing to constitute one of the large problems whose solution is urgent.

*Conditions in Some Other Cities.* — It is manifestly unfair to dwell at great length on conditions in one city and omit reference to similar conditions, if they exist, in other cities of the

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<sup>1</sup> Federation of May, 1908, pp. 7, 12.

Commonwealth. Not only in the Homestead Commission's reports, but in all other discussions of bad housing environment, Boston has nearly always furnished the illustrations. In pamphlets, books, newspapers and on the platform her tenements have been continuously exploited as supreme examples of all that was bad in the environment of the poor. But little has been said in regard to similar conditions in other cities in the State. A housing survey of Cambridge, one of Fall River,<sup>1</sup> a social survey of Lawrence,<sup>2</sup> a book upon Lowell by Dr. George F. Kenngott, "A Record of a City,"<sup>3</sup> "A Report on Housing Conditions in Springfield," published by the Union Relief Association, 1912, and transient, incomplete articles and references in various publications, seem to constitute the literature on housing conditions in cities of the Commonwealth other than Boston. And yet it is a matter of common belief, if not of knowledge, that housing and other living conditions in congested portions of some of the Massachusetts cities are as bad as if not worse than those in Boston. This is indicated by statistics relating to increasing tenement-house population given in the earlier part of this report, and also by the infantile, child and tuberculosis mortality rates in some of these cities.

Possibly a reason why Boston's bad conditions are better known than those of other cities is that the constant agitation in that city has somewhat awakened the public conscience, and made it more keenly alive to community shortcomings than is the public conscience in some other parts of the Commonwealth. However that may be, there is ample evidence of the existence of conditions in other cities, particularly in some of the manufacturing centers, which call for public action looking toward their abolition. Reference to bad conditions in these cities, however, is sometimes resented, and there appears to be a disposition to deny their existence rather than to seek a cure. A more creditable attitude would be a desire on the part of the general public, but more particularly by large employers of labor, to know if such statements are true, and, if the conditions described are found to exist, to take immediate remedial

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<sup>1</sup> Housing Conditions in Fall River, published by the Associated Charities Housing Committee in 1912.

<sup>2</sup> Report of the Lawrence Survey, published in 1912 by the Trustees of the White Fund.

<sup>3</sup> Macmillan, 1912.

steps. Surely those responsible for the management of large concerns cannot be held blameless if they take no thought as to the conditions under which their operatives live.

If reference is here made to only a few particular cities, the conclusion to be drawn is not that similar conditions do not exist elsewhere, but rather that the public conscience has not yet sufficiently awakened in other cities to cause them to investigate and learn what their own conditions actually are.

*Fall River.* — “The Survey of Housing Conditions in Fall River,” published in 1912, covered 279 buildings containing 1,171 apartments with a population of 5,980 persons, or 5 per cent. of the total population of the city. The committee in charge of the survey stated that its desire was to ascertain general conditions rather than to find startling abuses. It therefore studied sections rather than houses, and recorded both sanitary and unsanitary conditions, basing its conclusions upon averages, and not upon what might be found in individual dwellings.

Of the 5,980 persons found in the homes studied, 3,006 were adults. Foreign elements predominated in the districts covered; 4,239 rooms used for living purposes were found in 1,171 apartments, or an average of 3.7 rooms per apartment, or 1.4 persons per room. There were 2,851 rooms used for sleeping purposes, which included 30 kitchens used in part as bedrooms and 9 attic bedrooms, making 2.09 persons per bedroom. About one-fifth of the families kept lodgers.

About 53 per cent. of the 279 buildings or rows of buildings examined were of two and one-half stories. Only 5 were constructed of brick, and the balance were frame buildings of various sizes. Seven per cent. were rear tenements, with a view of the street partially or wholly shut off. Nine were upon courts opening off from the main street.

In only two cases were basements found to be used for dwelling places.

In 59 cellars there was practically no ventilation, more than half of which contained toilets. Fifty-five cellars had no light. In some instances the odors from the cellars permeated the whole building. Fifty-three were wet. There were 105 dark

or semidark rooms, besides many where the light comes from narrow alleys or passageways between buildings.

The 329 buildings averaged to cover only 58 per cent. of the lots. Of the 105 dark rooms 94 were used as bedrooms by 209 persons.

Many toilets were found in a deplorable condition in regard to their location, construction, cleanliness and the number of persons and families using them.

There were only 32 bathtubs in the 329 buildings, — less than 2 bathtubs for each 100 apartments.

Notwithstanding the city removes the garbage, there was no insistence upon proper receptacles and no proper care of it. In 27 cases this lack of proper care had resulted in nuisances, although investigation occurred in the winter when neglected garbage is much less likely to become offensive than in the summer.

Some activity followed the publication of the housing committee's reports, and some of the worst of the conditions were improved.

These figures on infant and child mortality and tuberculosis, while indicating some improvement, emphasize the fact that much yet remains to be done:—

TABLE 4. — *Infant, Child and Tuberculosis Mortality in Fall River.*

	1910.	1911.	1912.	1913.	1914.
Infantile mortality (number of deaths of infants under one year per 1,000 births), . . . . .	186.0	177.0	151.0	150.9	160.7
Child mortality (number of deaths of children under five years, out of each 100 deaths), . . . . .	50.3	50.1	44.1	48.1	44.5
Tuberculosis (number of deaths), .	152.0	164.0	147.0	157.0	186.0

The persons covered by this report comprise rather less than 5 per cent. of the entire population of Fall River. To what extent these conditions are prevalent in other parts of the city it would be impossible to determine without an expensive and extensive investigation. It is certain that conditions in the territory covered are no better and no worse than in some other parts of the municipality.

*Lawrence* has a population of 90,259. The Lawrence Survey states that in 1912 more than half (52 per cent.) of its people were living in 9,389 apartments in tenement houses constructed for three or more families, 576 of which were four or more stories in height. Wooden construction prevails throughout even the most congested districts. More than one-third of the population lived on one-thirteenth of the city's area.

In the five years ending June, 1911, 3,063 apartments were built in 1,052 new houses, of which 2,328, or 76 per cent., were in tenement houses intended for three or more families, showing a tendency away from the one or two family house to the large tenement. Three hundred acres in North Lawrence showed 6,108 tenements with 33,700 population, which gives a density of 119 per acre, excluding the common. Some portions showed a population ranging from 243 to 556 per acre.

In the North Lawrence district there were 703 houses built upon the rear of lots, 360 of them being in the 300 densely populated acres, of which 129 were three and 61 were four and a half stories in height. In the entire city there were 822 rear tenements with 1,821 apartments.

Excessive proportions of the lots are covered by buildings, in many instances over 80 per cent. of the lots, and in a few cases over 90.

The investigators for the Lawrence Survey <sup>1</sup> in 6 half blocks found 342 rooms in which it was not possible to read at mid-day except within a foot or two of the window, and 561 other rooms where it was difficult to read on the side of the room opposite the window. There was a satisfactory amount of light in only 59 per cent. of the rooms. Fifty-nine rooms had no windows to the outside air. Seven rooms had no windows whatsoever. One apartment in 19 had a bathtub, 1 in 14 a washtub. Fifteen apartments had 3 or more families to a tenement, and an average of 3 or more persons per room, excluding the kitchen.

The same deplorable sanitary conditions prevail in the overcrowded parts of Lawrence as in congested districts in other cities.

The new commission government is endeavoring to better

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<sup>1</sup> The Report of the Lawrence Survey, 1912.

the conditions in Lawrence. A new housing code has been adopted which, if adhered to, will prevent any future duplication of the worst conditions now existing. Below is the course of infant and child mortality and tuberculosis for recent years:—

TABLE 5. — *Infant, Child and Tuberculosis Mortality in Lawrence.*

	1910.	1911.	1912.	1913.	1914.
Infantile mortality (number of deaths of infants under one year per 1,000 births), . . . . .	167.0	141.0	135.0	128.0	140.4
Child mortality (number of deaths of children under five years, out of each 100 deaths), . . . . .	46.7	42.1	40.1	40.4	41.4
Tuberculosis (number of deaths), . .	95.0	124.0	119.0	116.0	86.0

*Lowell* presents a unique history, showing in its early years conditions of home and labor suggesting the ideal, yet deteriorating from its high estate until in later years its plight in some parts was deplorable. The city is referred to as being in the early period (1825) “a fairy scene. Here we beheld an extensive city, busy, noisy and thriving, with immense prospects of increasing extent and boundless wealth. . . . On the banks of the Merrimack are already three superb factories and two immense piles of brick buildings for calico-printing. In front of these, on the banks of the factory canal, which is fenced in and ornamented with a row of elms, are situated the houses of the people. They are handsomely and uniformly painted, with flower gardens in front, and separated by wide avenues. There is a beautiful Gothic stone church opposite the dwelling houses, and a parsonage of stone is erecting. There is a post office, fine taverns, one of which is a superb stone edifice with outbuildings of the same material, and perhaps two hundred houses all fresh from the hands of the workmen. The ground is intersected with fine roads and good bridges. The whole seems like enchantment.”<sup>1</sup>

Michel Chevalier, a distinguished French statesman, who visited Lowell in 1837, describes housing and other conditions, as follows:—

<sup>1</sup> Reminiscences, by Dr. John O. Green, at the Semi-Centennial of Lowell, 1876.

By the side of these large structures are numerous little wooden houses painted with green blinds, very neat, very snug, with a few small trees around them; there are also large brick houses in the English style. . . . Here are all the edifices of a flourishing town in the old world, except prisons and hospitals, . . . with no rags.

Charles Dickens in 1842 refers to the “‘Lowell Offering,’ a repository of original articles written exclusively by females actively employed in the mills.”

Wendell Phillips said of Lowell at this period: “The town was great in all that makes good society.”

During these years the corporations owned many of the boarding houses and tenements. The former received frequently a small subsidy in order that their charges might be low. The rents for the tenements were low, and they were kept in good condition.

The corporation houses were usually well built of brick, but of all the buildings in the city 94 per cent. are now of wood.

In later years many of the corporations disposed of their boarding houses and tenements. As a result, rents in houses formerly belonging to the corporations have increased two or three times the previous charges, and several families are now crowded into houses or apartments occupied a few years ago by only one family. Some of the houses once occupied by American families have been filled largely by great numbers of foreigners, sleeping on mattresses on the floor, 3 or 4 in a room.<sup>1</sup>

When immigrants arrive in the city and for many years after, they have a tendency to crowd into the wooden cottages of the “Acre” and the great tenements of “Little Canada.” . . . The largest wooden tenement block in “Little Canada,” “The Harris,” has 2 shops and 48 tenements of 4 rooms each, and often contains about 300 inhabitants. It has 30 rooms without windows. There is an indoor water-closet in each tenement, but there are very few, if any, bathrooms. The washing is done in the kitchen, and the drying on outdoor lines, controlled by pulleys. This “double block” is four stories high. . . . It was built in 1880, and was a startling innovation, and the owner was cen-

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<sup>1</sup> “The Record of a City,” by Geo. F. Kenngott (Macmillan, 1912), p. 49.

sured by the press and clergy. . . . Each tenement contains two dark rooms and two light rooms, the tenements on the last floor up being favored with skylights, however, which make the otherwise dark rooms light. All the tenements are alike, a slight increase in rent on the upper floors being due to the fact that the rooms are more easily heated. The street floor tenements rent for \$1.50 a week, and those above for \$1.75.<sup>1</sup>

In Table 3 on page 17, the number of persons per dwelling in Lowell is given as 7.2 in 1890, 6.9 in 1900, 7.1 in 1910, which would indicate that the construction of smaller houses for one and two families has at least kept abreast with the building of obnoxious block tenements. But the number 7.1 persons per dwelling is far above the average number of persons per dwelling in the cities of the United States, which is only 5.4. However, 11 cities in the Commonwealth show a greater number of persons per dwelling than does Lowell.

While some spots on which the great tenements have been erected show a large density per acre, the density of population in the city as figured by wards is not so great as is frequently found in other Massachusetts cities. Ward 2, with 224 acres and 13,699 population by the Census of 1915, has a density of only 61 per acre, the highest in the city. Wards 5 and 4 have, respectively, a density of population of 59 and 52 per acre. The whole city has a density of population of only 12 persons per acre, showing that within the city limits is ample room for a sufficient supply of wholesome homes for a much larger population than Lowell now has, if the land were properly utilized.

The overcrowding of the "Acre" and in the great tenements of "Little Canada," and the construction of these large tenements, of which Lowell has altogether too many, is entirely unnecessary. Some of these block tenements are described as containing 40 rooms with 79 inhabitants, some of the kitchens having no windows; 66 rooms with 88 inhabitants, 16 rooms without windows; others crowded in close and narrow quarters, with three or more in a room, little or no ventilation, rooms often without windows, no facilities for bathing; extremely bad

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<sup>1</sup> "The Record of a City," pp. 51, 52.



toilet accommodations, bathtubs and bathrooms unknown, and water-closets in the cellar, where they are usually a nuisance.<sup>1</sup>

Miss Katherine M. Walsh, the head nurse employed by the district nursing department of the Middlesex Women's Club, gave this description of the conditions found in 1912: —

I have been amazed, literally stunned, by the conditions under which many people live in Lowell. It is confined to no particular locality; there are bad conditions, in spots, scattered all over the city. While it is true that the tenants themselves are not always as particular as they should be, yet the houses they live in are in such an unwholesome, unsanitary condition in many instances that even when the people have started in with some idea of cleanliness they become careless as conditions grow worse, and do as their neighbors do.

The actual sanitary conditions in Lowell up to a recent period are thus inadequately described. The crowded quarters in which many of the people lived, the absence of light and pure air in sleeping rooms, together with the disregard of the commonest sanitary laws, explain in large part the high rate of infant mortality. Though land was plenty, cheap and within easy access of the mills and shops, the great tenements housing hundreds of people were built and the congested districts established, — a menace to the health and happiness of the community.

The introduction of the driven-well water supply, the building of new sewers, the destruction of garbage, the cleaning of streets and alleys, scientific oversight of communicable diseases, more careful inspection of tenements, and a more vigorous course of action by the board of health, have brought about a gratifying decrease in infant and child mortality and in the number of cases of tuberculosis. Some actual results of good work done in recent years in Lowell are shown in the following table: —

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<sup>1</sup> "The Record of a City," pp. 54, 55.

TABLE 6. — *Infant, Child and Tuberculosis Mortality in Lowell.*

	1910.	1911.	1912.	1913.	1914.
Infantile mortality (number of deaths of infants under one year per 1,000 births), . . . . .	231.0	189.0	184.0	151.4	146.9
Child mortality (number of deaths of children under five years, out of each 100 deaths), . . . . .	39.7	33.8	36.8	33.9	32.0
Tuberculosis (number of deaths), . .	118.0	125.0	122.0	98.0	101.0

While the decreasing rates of infant mortality and the lower number of deaths from tuberculosis give credit for the work already done, they also emphasize the need for still further work of the same character.

*Springfield.* — Of an investigation made in 1912, under the auspices of the housing committee of the Union Relief Association of Springfield, it is stated that while "it cannot be claimed that the investigation covered all the territory that might be included in a housing survey, sufficiently representative districts were examined to secure facts which indicate prevailing conditions in the poorer sections of the city." The report covered 404 buildings of a variety of types, in which there were 1,427 apartments. Two hundred and sixty were two or less stories, and 92 were three or more stories in height. Thirty-three, or 8 per cent., were rear tenements. One-third of the buildings were in bad repair, with a general condition of dilapidation, some of the most serious defects being found in the condition of the stairs, drain pipes and roofs. One hundred and twenty-six out of 329 cellars were found in especially bad repair, and 143 were unclean. Two infant deaths occurred in one building during the time that there were more than 12 inches of water in the cellar. In the rear buildings the conditions of repair were below the average. The yards were less clean, toilet facilities were poor, and the general sanitary condition of the interior bore the marks of neglect and carelessness. One toilet was located in the cellar where four families were expected to use it, although the cellar was full

of ice, the toilet without water, and the approach to the cellar was through the outside by stairs out of repair.

There were living in these 1,427 apartments 7,370 persons, of which 3,924, or 53.25 per cent., were adults, 889 of these being lodgers; 3,446, or 46.75 per cent., were children. Less than 4 per cent. of the total population of these tenements were classified as Americans, and less than 16 per cent. were of English-speaking parentage.

There were 5,782 rooms, or 1.27 persons for every room. The 7,370 people had 3,610 bedrooms, which includes 21 attic bedrooms, at their disposal, or 2.4 persons for each bedroom. The 33 rear tenements housed 114 families numbering 697 people.

Rooms to the number of 327 were totally dark or gloomy, with proper ventilation impossible; 193 of them were bedrooms, 55 without light or air except from door or transom.

In addition to 30 yard toilets there were 182 outbuildings in the yards of the houses examined, mostly of flimsy construction, used for storage, stables, chickens, etc.

The buildings covered from 39 to 79 per cent. of the lots, the higher the building the greater proportion of the lot covered. Twenty-seven basements were used as dwellings. One hundred and twenty-five business establishments were found in the 404 dwelling houses.

Of 1,279 toilets examined, 551 were dirty and 71 filthy. Five hundred and seventy-six were within the apartments. Seven hundred and eighty-three toilets were dark or gloomy, 479 of them having no light except what could enter by the door when it was open. No ventilation was provided for 445 toilets. One hundred and eighty-six toilets accommodated more than one family each. Thirty per cent. of the families shared in the use of toilets with other families. Three hundred and one families were compelled to use cellar toilets, one-half of which were either dark or gloomy, and 27 entirely dark. It was said that a detailed description of some of the conditions found in the toilets would make the report unreadable.

Of the 1,427 families, only 143, or about 10 per cent., were provided with bathtubs. Of the 404 yards only 21 had proper sewer drainage.

Sixty-nine new buildings, with 329 apartments, were examined, in which no serious fault was found excepting that the buildings on a general average occupied an even larger proportion of the lot than in the case of the old buildings.

Springfield is notable for its excellence of location, general healthfulness and the public-spirited efforts of many of its citizens to keep home and other conditions up to the highest possible mark. The record in regard to child and infant mortality and tuberculosis, given below, is better than the average:—

TABLE 7. — *Infant, Child and Tuberculosis Mortality in Springfield.*

	1910.	1911.	1912.	1913.	1914.
Infantile mortality (number of deaths of infants under one year per 1,000 births), . . . . .	124.0	102.0	102.0	104.0	95.1
Child mortality (number of deaths of children under five years, out of each 100 deaths), . . . . .	30.9	24.6	25.6	25.9	22.9
Tuberculosis (number of deaths), . . . . .	73.0	79.0	75.0	72.0	90.0

The decrease in child and infantile mortality shows effective work on behalf of the children, but the eradication of conditions which produce tuberculosis might well receive greater emphasis.

In April, 1912, the city ordinance relative to the construction, alteration and maintenance of buildings was revised, and gives promise of future progress toward better housing conditions.

Such are some of the living conditions in this State which emphasize the need of a larger supply of homes within the means of the lower-paid working people. These conditions are not peculiar to the cities referred to in the preceding pages, nor to the cities of Massachusetts alone. They abound everywhere, but some nations are in advance of the United States in attempts to overcome them. Public funds have elsewhere been used and private enterprise encouraged in ways scarcely yet suggested in this country, in the efforts to secure better homes for those who need them most. The results have been gratifying and successful, and have seldom cost the public treasury anything.

## (5) SOME CIVIC DEFECTS OF TENEMENT-HOUSE LIFE.

A serious aspect of tenement-house life is that it involves constant changes from place to place, which render difficult any deep, continuing interest in the affairs of the community in which the tenant makes his temporary abode. The things which are of vital concern to his community are too frequently of little or no concern to him. He is living here now, but next year he may be elsewhere, and the good or evil effects of any act of the community may have little or no effect upon him. This strikes at the very life of good citizenship, for the essence of good citizenship is a deep and abiding interest in affairs of common concern to all members of the community. By lessening individual interest in large public affairs, mentality and efficiency are lowered. The constant changes of a nomadic tenement-house life weaken or break the strongest of social and sometimes of moral ties. A certain amount of moral responsibility to associates is lost when an easy removal from one tenement to another will give new neighbors who know nothing of past history, while old acquaintances hear little or nothing of subsequent lapses or achievements. The restraint resulting from the knowledge that old friends are aware of shortcomings, and the incentive arising from satisfaction in their appreciation of good work well done, are both in large part lost. Thus the usefulness of many who would otherwise be of great help to their communities is impaired. There can be no effective public opinion where a large part of the public does not stay in a place long enough to create one.

Again, under the best conditions tenement or apartment house life entails separation from physical contact with the earth, and to a large degree discourages exercise in the open. These things are being eagerly urged upon the people as essential to sound health. They are rapidly becoming marked features of modern life. A long separation from contact with the earth is now recognized as sure to bring racial deterioration. By this it is not meant to advocate a "back-to-the-land" or "garden" movement, though such habits tend to promote health, vitality, endurance and keen enjoyment of rational

pleasures. Successful breeders of choice, strong animal life, of any species, are careful to secure as free range as possible for their stock. It would be impossible to imagine a strong and energetic race coming from generations habituated only to contact with stone pavements, wooden floors and brick walls. Proof of the value to the race of contact with the earth and life in the open is seen in the number of country-bred men and women who are leaders in all the activities of urban life. There is a recognized necessity for cities to renew their vitality by a constant influx from the rural districts. While these considerations are not a conclusive argument for the total elimination of tenement and apartment house living, they constitute a warning against the increasing prevalence of such a mode of life.

For physical, moral and mental health certain things are necessary, among them sunlight, fresh air, privacy, and, for children, reasonable space in which to play. The best of tenement or apartment houses provide these things only in limited degree. Their restricted accommodations do not lend themselves to the increase and upbuilding of a virile people. They tend rather to sap the vitality of the race, for in these habitations no provision is made for children. There is no place for them. They are not prepared for. The modern tenement, good or bad, lacks many of the essentials of proper child life. Physical growth and mental and moral development are hampered and sometimes perverted by adverse surroundings. Out of 311,396 persons living in Boston tenements in 1891, 73,144 had no outside yard space; 228,680 had no bathrooms; 583 families, comprising 1,805 persons, lived in basements, and 688 families, comprising 1,651 persons, in attics.<sup>1</sup> Such habitations are unfit for adults. It is a crime against childhood and future citizenship to rear children in them, but there is evidence to indicate that they have increased rather than decreased in number.

*Excessive Mortality among the Young.*—In the preceding pages some relation has been shown between overcrowded, un-

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<sup>1</sup> Pages 117, 125, 134, 135, Report Bureau of Labor Statistics, 1891.

sanitary dwellings and excessive mortality among the young. We are more and more learning that health, public and individual, is a public asset, and that without great labor or expense it can be greatly promoted. Also we are more and more realizing that children, the most valuable of all assets, are being lost in great numbers from causes that can be corrected. The Welfare Commission of Kansas City found that infant mortality was from five to seven times worse in districts where bad housing conditions prevailed than in other parts of the city. Out of every 1,000 children under five years of age in the North End of Boston, 85 died in 1905, as shown by the Homestead Commission's report to the Legislature in January of 1912, while in other more favored parts of the city the death rates for children under five years of age were as low as 28, 32 and 34 per 1,000. Fifteen years ago New York City instituted its tenement-house department, which expends \$800,000 a year in seeking to establish and maintain safe and sanitary conditions in its 103,000 tenements, with 920,000 apartments housing 4,000,000 people. Ten years ago a new tenement-house law was put into effect. "From having the worst housing conditions in the world, New York has come to have, in some respects, the very best," says Lawrence Veiller. The steady decrease in the rate of infantile mortality, from 167 per 1,000 births in 1901-05, to 94 per 1,000 births in 1914, cannot be ascribed to housing improvements alone, but it is recognized that the more wholesome home conditions produced were a fundamental factor in reducing all the mortality rates. If cleaning, letting in light and air, and installing more sanitary appliances in the crowded New York tenements were a vital factor in reducing infantile mortality from 167 per 1,000 births to 94 per 1,000, what might we not expect if each family were housed in a wholesome habitation worthy the name of home? New Zealand, the country that has gone farthest in aiding its people to secure healthful homes, shows a record of infant mortality of only 68 per 1,000 births in 1908, 62 in 1909, 68 in 1910, 56 in 1911, 51 in 1912, 59 in 1913 and 51 in 1914. The Year Book of Housing Reform for 1911 gives the infant mortality rate for Letchworth, Bournville and Port Sunlight, three of the best known of the English garden cities, as 38, 80 and

65, respectively, per 1,000 births, while the average for 26 English cities was 145 per 1,000.

Wherever children have wholesome homes, with fresh air, sunlight and room to play, the death rate drops. A study of the two following tables, showing the course of infant and child mortality in the cities of the Commonwealth, emphasizes the truth of this statement. In all the cities with open spaces, little congestion of population and fair sanitary conditions, the records for the children show low rates of mortality. In those cities known to possess overcrowded, unwholesome tenements the children die in numbers that should awaken a dormant public conscience.

The tables have been printed before in the reports and bulletins of this Commission. They are here revised and brought as nearly up to date as official statistics will allow. The figures are compiled from the annual reports of the births, marriages and deaths issued by the Secretary of the Commonwealth. In presenting them we wish again to state that it is not our belief that the congested, unsanitary home conditions found in parts of most cities are solely responsible for excessive mortality among infants and young children. There are many factors in the problem, but overcrowding, of buildings upon land and of people in buildings, with the unsanitary environment which always accompanies it, is the most fundamental, farreaching and deadly one. Many of the other factors grow out of these conditions, and would disappear with them.

It has been accepted as almost axiomatic that infants form an index of the character of the environment of the individual, and a high infantile mortality may rightly be regarded as indicating unfavorable sanitary and social conditions. As stated by the Secretary of the Commonwealth in the seventy-third annual report on vital statistics, a "large infant death rate is a needless sacrifice of human life; it is an index of general conditions which make for deterioration; it is due solely to individual and civic neglect." So the tables should show the cities where special effort is needed to remove evil conditions in order to save lives and promote public health and general well-being.



TABLE 8. — *Infantile Mortality. Death Rate in Massachusetts Cities of Infants under One Year per 1,000 Births, 1908, 1909, 1910, 1911, 1912, 1913 and 1914.*

CITIES.	1908.	1909.	1910.	1911.	1912.	1913.	1914.
<b>The State,</b>	<b>134</b>	<b>127</b>	<b>133</b>	<b>119</b>	<b>117</b>	<b>110.1</b>	<b>105.9</b>
Beverly, . . .	86	94	88	111	50	79.0	67.7
Boston, . . .	149	120	126	126	117	110.0	103.3
Brockton, . . .	97	119	99	78	100	97.0	103.4
Cambridge, . . .	118	102	119	114	97	98.0	89.9
Chelsea, . . .	92	97	88	78	70	78.5	73.4
Chicopee, . . .	170	170	165	151	177	137.5	136.8
Everett, . . .	117	75	79	68	95	103.7	85.0
Fall River, . . .	178	186	186	177	151	150.9	160.7
Fitchburg, . . .	141	110	105	89	105	110.7	81.9
Gloucester, . . .	150	130	99	111	109	96.5	80.0
Haverhill, . . .	104	110	142	96	120	109.4	98.7
Holyoke, <sup>1</sup> . . .	182	231	213	183	163	199.8	178.3
Lawrence, . . .	155	172	167	141	135	128.0	140.4
Lowell, . . .	202	185	231	189	184	151.4	146.9
Lynn, . . .	111	99	97	102	112	82.4	94.6
Malden, . . .	100	96	90	76	84	58.6	95.2
Marlborough, . . .	87	121	104	88	114	77.2	74.1
Medford, . . .	62	75	59	61	100	59.0	31.9
Melrose, . . .	95	82	121	60	40	58.6	64.3
New Bedford, . . .	144	143	177	148	156	142.9	150.3
Newburyport, . . .	91	72	119	105	46	58.5	73.6
Newton, . . .	87	91	94	93	76	83.7	58.5
North Adams, . . .	94	152	101	106	113	75.9	117.3
Northampton, . . .	138	119	101	107	92	94.5	124.7
Pittsfield, . . .	89	118	123	107	100	105.6	101.9
Quincy, . . .	113	97	103	102	82	107.9	75.5
Salem, . . .	174	126	123	129	121	133.5	103.4
Somerville, . . .	98	84	101	93	78	86.5	70.5
Springfield, . . .	96	114	124	102	102	104.0	95.1
Taunton, . . .	152	168	212	157	171	148.2	123.2
Waltham, . . .	81	92	83	99	87	56.7	56.2
Woburn, . . .	111	102	136	84	114	117.1	89.8
Worcester, . . .	114	121	137	111	133	105.3	104.8

<sup>1</sup> Infant asylum.

The decrease of 28 per 1,000 in the infantile mortality rate, from 134 per 1,000 in 1908 to 106 per 1,000 in 1914, a reduc-

tion of nearly 22 per cent., is one of the most gratifying of the State's recent achievements. The various activities urging better conditions and care for infants have ample reward for their efforts in the contemplation of these figures. Had the 134 per 1,000 rate of infantile mortality for 1908 prevailed in 1914 there would have been a total of 12,515 deaths instead of 9,894, — a difference of 2,621.

Only 9 cities show an infant mortality rate exceeding the average for the State. Some existing conditions in 3 of these cities have been shown on preceding pages. The responsibility for these excessive rates rests upon property owners who maintain unsanitary tenements, officials who permit them to be maintained, and the public indifference which ignores them. These 9 cities show rates so far beyond the average as to be a reproach. In these cities the unwholesome tenement in rows or blocks is too frequent. That a larger supply of more healthful homes would materially decrease these rates is indicated by the fact that the lowest rates are shown for cities in which one and two family houses predominate. Beverly, with a rate of 68 deaths of infants per 1,000 births, Marlborough 74, Medford 32, Melrose 64, Newburyport 73, Newton 58, Quincy 75, Somerville 70, Waltham 56, though having tenements, some of them very poor, are not tenement-house cities.

Possibly it can be said that housing environment may have a more direct bearing upon the mortality of older children than upon infants. To some, excessive mortality among the children who have survived the perils and handicaps of the first year points more directly to adverse conditions in and about the habitation. So herewith is presented the table showing how many deaths there are of children under five years of age in each 100 deaths of persons of all ages.

TABLE 9. — *Child Mortality. Number of Deaths of Children under Five Years, out of each 100 Deaths, 1908, 1909, 1910, 1911, 1912, 1913 and 1914.*

CITIES.	1908.	1909.	1910.	1911.	1912.	1913.	1914.
<b>The State,</b>	<b>30.3</b>	<b>27.9</b>	<b>28.4</b>	<b>26.4</b>	<b>26.3</b>	<b>25.8</b>	<b>24.6</b>
Beverly, . .	20.8	26.5	18.7	24.5	13.2	20.9	18.7
Boston, . .	33.1	27.4	27.0	26.5	25.8	24.7	23.5
Brockton, . .	31.7	31.9	25.6	24.1	28.9	27.5	26.4
Cambridge, . .	29.3	24.8	25.4	26.7	24.8	25.2	23.6
Chelsea, . .	28.8	23.6	22.1	22.7	23.2	23.1	24.8
Chicopee, . .	52.5	49.9	49.6	47.8	54.5	46.9	48.6
Everett, . .	35.5	24.5	23.8	20.6	26.0	26.7	24.3
Fall River, . .	52.4	50.5	50.3	50.1	44.1	48.1	44.5
Fitchburg, . .	37.5	36.9	34.7	32.5	36.6	32.0	26.8
Gloucester, . .	29.3	26.4	16.9	22.4	20.6	18.9	16.2
Haverhill, . .	22.8	22.6	24.9	19.7	25.3	25.7	19.8
Holyoke, <sup>1</sup> . .	45.1	44.3	45.8	40.0	40.6	41.9	39.0
Lawrence, . .	42.2	44.8	46.7	42.1	40.1	40.4	41.4
Lowell, . .	38.1	35.6	39.7	33.8	36.8	33.9	32.0
Lynn, . .	28.4	23.6	25.7	25.2	27.0	21.5	21.1
Malden, . .	27.0	25.8	22.2	20.1	23.6	20.2	25.1
Marlborough, . .	19.1	23.1	20.5	14.3	18.6	12.3	14.7
Medford, . .	18.3	18.7	13.6	16.7	21.4	15.4	13.0
Melrose, . .	20.9	15.0	22.0	12.4	10.6	12.8	13.9
New Bedford, . .	46.1	46.9	49.1	45.0	42.9	43.9	39.6
Newburyport, . .	13.1	14.6	16.2	15.8	9.9	12.6	14.9
Newton, . .	23.9	22.9	21.9	22.4	17.7	18.0	15.5
North Adams, . .	24.0	28.5	24.2	25.2	24.1	19.3	27.7
Northampton, . .	22.7	19.3	15.0	16.3	15.3	15.6	19.1
Pittsfield, . .	20.7	23.8	26.1	36.5	25.0	23.6	25.8
Quincy, . .	32.5	28.0	30.1	32.3	23.6	28.8	23.5
Salem, . .	38.2	27.2	27.8	31.6	28.7	34.0	26.3
Somerville, . .	26.9	22.3	23.0	22.1	21.2	22.3	20.7
Springfield, . .	22.9	26.5	30.9	24.6	25.6	25.9	22.9
Taunton, . .	26.4	27.1	31.9	26.2	29.0	25.4	19.5
Waltham, . .	17.8	20.3	16.9	21.1	21.8	16.4	16.7
Woburn, . .	23.7	21.0	26.9	26.2	24.9	21.2	20.6
Worcester, . .	28.2	25.7	29.5	25.0	29.2	26.3	25.3

<sup>1</sup> Infant asylum.

Here, again, the city with unwholesome tenements is prominent with excessive rates of mortality among the young, and

the city with a larger proportion of wholesome homes shows better results. The State as a whole shows a gratifying decrease of about 20 per cent., and 29 cities show an improvement in the record of deaths of young children.

Children below the age of five years constitute scarcely one-tenth of the population, yet according to Table 9 they furnish in several cities one-half, or nearly or more than one-half, of the funerals.

*Tuberculosis.* — The long fight against tuberculosis has resulted in Massachusetts in reductions of death rates from that disease, as follows: 1900, 185 deaths for every 100,000 population; 1905, 156 deaths for every 100,000 population; 1910, 133 deaths for every 100,000 population. The number of deaths in the State from tuberculosis in 1914 was 4,171. The State Census taken early in 1915 shows a population of 3,693,610. This would indicate that the death rate from tuberculosis has now been reduced to approximately 113 per 100,000 population.

The relation of tuberculosis to bad housing conditions has been much discussed. In an address in 1913 to the State inspectors of health by Hiram F. Mills, a member of the State Board of Health, page 18, he says: —

From plottings already made, by some of your number on maps of the cities and large towns, of the houses where deaths from tuberculosis have occurred in recent years, it is remarkable that large areas and long streets appear with few or no death marks, and these areas are found to be occupied by the better class of houses surrounded by good air and presumably occupied by well-informed people, while the areas containing the greater number of death marks are occupied by people not so well housed, more crowded and of varying nationality.

On page 16 he states that the small towns and cities up to 30,000 population "have an average death rate of 92 per 100,000. The cities from 30,000 to 100,000, including 927,456 inhabitants, have an average death rate from tuberculosis of 107 per 100,000, or 16 per cent. greater than that of those having less than 30,000 inhabitants. The four larger cities, including 476,414 inhabitants, have an average death rate from

tuberculosis of 144 per 100,000, while the city of Boston, with 686,092 inhabitants, has a rate of 156 per 100,000."

The Massachusetts counties in which are cities known to have bad housing conditions usually show it in the death rates from tuberculosis. Table 10 affords an opportunity for a comparison of the mortality in the different counties from this cause in 1910, the highest being placed first.

TABLE 10. — *Number of Deaths per 100,000 Population from Tuberculosis by Counties, 1910.*

Middlesex, . . . . .	163
Suffolk, . . . . .	160
Nantucket, . . . . .	135
Plymouth, . . . . .	127
Essex, . . . . .	121
Hampden, . . . . .	120
Bristol, . . . . .	118
Worcester, . . . . .	114
Barnstable, . . . . .	105
Norfolk, . . . . .	104
Hampshire, . . . . .	97
Berkshire, . . . . .	80
Franklin, . . . . .	73
Dukes, . . . . .	66

The statement that counties containing cities with bad housing conditions usually show greater mortality from tuberculosis than others is true also in regard to the cities. Wherever numbers of unsanitary, overcrowded tenements are found, there mortality from tuberculosis is high. Table 11 (page 50) presents the number of deaths annually from tuberculosis in the cities for each year since 1908, together with the number of deaths from this disease per 100,000 population in 1910. The gratifying feature shown by this table is the constant decline in the number of deaths from this dread disease in the Commonwealth and in many of the cities. It is to be regretted that records from some cities fail to indicate such decline. It would be well for those cities to awaken sufficiently to learn where the blame lies.

TABLE 11. — *Number of Deaths in Massachusetts Cities from Tuberculosis, 1908, 1909, 1910, 1911, 1912, 1913 and 1914.*

CITIES.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	Number of Deaths from Tuberculosis per 100,000. 1910.
<b>The State,</b>	<b>4,445</b>	<b>4,393</b>	<b>4,503</b>	<b>4,418</b>	<b>4,212</b>	<b>4,180</b>	<b>4,171</b>	<b>133.0</b>
Beverly, . . .	8	19	18	21	18	11	12	90.1
Boston, <sup>1</sup> . . .	1,058	1,039	1,115	1,051	1,043	1,035	1,010	155.8
Brockton, . . .	52	45	46	44	43	42	56	80.9
Cambridge, <sup>2</sup> . . .	271	283	254	176	182	191	181	222.5
Chelsea, <sup>3</sup> . . .	42	37	38	42	42	34	45	123.8
Chicopee, . . .	26	34	24	27	28	29	39	109.5
Everett, . . .	26	35	32	34	28	34	30	92.6
Fall River, . . .	150	149	152	164	147	157	186	127.8
Fitchburg, . . .	36	25	28	32	21	33	27	75.1
Gloucester, . . .	39	34	40	32	27	27	20	141.0
Haverhill, . . .	55	49	61	43	42	56	58	113.4
Holyoke, . . .	82	86	73	65	74	76	71	131.6
Lawrence, . . .	106	132	95	124	119	116	86	134.2
Lowell, . . .	125	126	118	125	122	98	101	115.9
Lynn, . . .	108	98	99	85	62	93	82	101.1
Malden, . . .	47	41	41	38	27	31	39	87.4
Marlborough, . . .	19	8	15	23	12	27	12	105.8
Medford, . . .	24	22	18	21	16	16	16	87.3
Melrose, . . .	12	15	16	10	10	7	8	80.3
New Bedford, . . .	119	125	107	136	115	121	143	124.5
Newburyport, . . .	17	26	20	19	16	18	11	131.3
Newton, . . .	31	26	29	18	25	17	22	64.8
North Adams, . . .	14	30	19	19	26	17	12	98.3
Northampton, <sup>4</sup> . . .	20	21	30	28	40	31	21	143.0
Pittsfield, . . .	26	37	26	33	36	43	36	98.4
Quincy, . . .	26	42	33	33	31	34	51	101.0
Salem, . . .	50	37	62	52	42	42	50	111.2
Somerville, . . .	74	75	74	79	84	70	84	99.9
Springfield, . . .	76	93	73	79	75	72	90	89.1
Taunton, <sup>4</sup> . . .	71	54	47	57	63	51	73	170.4
Waltham, <sup>5</sup> . . .	30	29	28	21	21	29	25	92.6
Woburn, . . .	15	26	18	13	16	10	14	115.0
Worcester, . . .	205	169	151	167	149	155	176	115.3

<sup>1</sup> State hospital and private sanatoria.<sup>4</sup> State hospital.<sup>2</sup> Hospital for incurables.<sup>5</sup> Massachusetts School for the Feeble-minded.<sup>3</sup> Soldiers' Home.

As shown by Tables 8, 9 and 11, a high rate of mortality from tuberculosis often coincides with a high rate of mortality among the children. The same unwholesome conditions that so disastrously affect the young afford an excellent environment for the development and spread of tuberculosis, which flourishes best in the dark, damp, unclean rooms of unsanitary dwellings. In Lowell, "unsanitary dwellings were brought to public notice when the Board of Health in 1909 compiled a record of deaths from tuberculosis in the last five years, and the startling discovery was made that certain infected tenements were breeding the disease. One tenement had a record of 6 deaths in 5 successive families in this tuberculosis incubator. This showed the absolute necessity of protecting people against themselves. It became necessary at once to inspect the tenements. In one instance a building was found four stories high, housing 60 families, with dirt, darkness and dampness, the three worst features to fight."<sup>1</sup>

For the five years ending 1912 there were 5,306 deaths from tuberculosis in Boston, of which three densely populated wards with considerable bad housing furnished 369, leaving 4,937 for the rest of the city, in many parts of which were to be found even greater density of population and worse conditions of housing than in these three wards. In these five years there were 890 deaths per 100,000 persons from tuberculosis in these three wards, as against 785 deaths per 100,000 persons in the remainder of the city; that is to say, in the smaller district, with an unusual proportion of bad housing, the mortality from tuberculosis was greater by 105 per 100,000, or more than 13 per cent., than in the larger territory, which contained both good and bad housing conditions in about the ordinary proportions.

In 1913 Col. G. Kyffin-Taylor, V.D., M.P., Chairman, Liverpool Housing Committee, reported to the Tenth International Housing Congress at The Hague that in the model tenements built in Bevington and Burlington streets, London, "the mortality rate has fallen from 50 per 1,000 to 27 per 1,000, a saving of life of nearly 50 per cent. At one time typhus fever was never absent from the slums, and in epidemic years it claimed its victims by thousands. During 1910, for the first time in

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<sup>1</sup> "The Record of a City," p. 57.

the sanitary history of Liverpool, not one single case of typhus was recorded. In 1895 the number of cases of typhoid was 1,300. There has been a remarkable falling off, until in the year 1911 the number of cases was only 200. In 1901, 154 people died from typhoid, and this number fell to 42 in 1910. The diminution in the disease runs with the diminution in unsanitary property. The average annual death rate from phthisis has fallen from 4 to 1.9 per 1,000. During the past year, out of 2,601 cases of phthisis, which have been under observation at their own homes, only 33 were found to reside in the dwellings erected by the housing committee of the city council, and from the reports it appears that the majority of these persons had the disease before they entered the municipal dwelling."

The significance of these figures is more fully realized when it is known that in the Bevington Street houses 94 per cent., and in the Burlington Street houses 99½ per cent., of the people who formerly occupied the slums upon the same ground were rehoused in the new buildings, so that a real personal improvement is indicated by the figures. The death rate from consumption was more than cut in half by the improvement in housing. It has been contended that tuberculosis was more prevalent in certain districts, not on account of the bad housing but because where bad housing was most prevalent there were also found other evils. The results in Liverpool show that where the home is improved many other adverse conditions disappear.

In Edinburgh results were still more striking, but were weakened by the fact that the houses were not occupied by the same people. In that city the tearing down of bad houses and the erecting of good caused the general death rate to fall from 45 to 15 per 1,000, the phthisis death rate from 3.8 to .4 per 1,000, and from other tuberculous diseases from 7.1 to .4 per 1,000. There can be no clearer evidence of the importance of the relation between housing and tuberculosis.<sup>1</sup>

At the Sixth Annual Conference of the British National Association for the Prevention of Consumption, 1914, Dr. Ditmar, medical inspector under the local government board of Scot-

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<sup>1</sup> Eleventh Report of the Henry Phipps Institute, for the Study, Treatment and Prevention of Tuberculosis, pp. 49, 50.



land, is quoted as saying, "The main factor is the condition of the house." "The problem lies in housing conditions and nothing else." "I think the spread of phthisis is due to the houses."

At the same conference, Dr. Chalmers, medical health officer of Glasgow, in referring to the fact that the tuberculosis death rate in certain districts of the city was from 200 to 600 per cent. higher than in others, said: "The house is a dominant factor in the matter."

"The value of the opinions of these physicians and health officers who have given the subject considerable study, and the experiences of these cities, must convince even the most prejudiced that, from the standpoint of public health, the housing of the population is a matter which deserves the most careful consideration."<sup>1</sup>

Some social and sanitary surveys, after investigating conditions in tenements, have endeavored to learn what relation exists between housing and health. The Department of Public Welfare of Cleveland, in 1914, published an account of an investigation of housing conditions in three districts of the city, (A) the worst, (B) the average, (C) the best.

District A — with a density of population of 208 persons to the acre, with much overcrowding of buildings on land and people in buildings, 19 per cent. of buildings on rear of lot, 33 per cent. in disrepair, 54 per cent. unclean, poor light, ventilation and sanitary conditions — had a tuberculosis rate for 1912 of 35 per 1,000, and 24 per 1,000 for 1913.

District B — "the average," with 46 persons per acre, 6 per cent. of the buildings on rear lots, 10 per cent. unclean, 4 dark rooms and 11 poorly ventilated, rather better sanitary conditions than District A — had a tuberculosis rate of 23 per 1,000 in 1912, and 19 per 1,000 in 1913.

District C — "the best," with 18 persons per acre and other conditions reasonably good — had a tuberculosis rate of 5 per 1,000 in 1912 and 6 per 1,000 in 1913.

From 1907 to 1914 there were reported 8,751 cases of tuberculosis in the whole city; 1,087 were in District A, 493 in District B, and 5 in District C.

District A is in the center of the city, District B, 30 minutes'

<sup>1</sup> Eleventh Report of the Henry Phipps Institute, for the Study, Treatment and Prevention of Tuberculosis, pp. 49, 50.

car ride out, and District C an hour out. All three districts are inhabited by working people, largely foreigners.<sup>1</sup>

Miss Mildred Chadsey, Cleveland's chief sanitary inspector of the health department, states:—

Our city has prepared a set of pin maps that show where the cases of tuberculosis, contagious diseases, of gastrointestinal diseases, of infants' deaths, and all deaths which have occurred during the year are marked. It has prepared another set of pin maps showing where the foul plumbing, the filthy yard-closets, the dark rooms, the overcrowded lots are, and in every map the pins have practically gone in the same place.

In a report of a study of conditions in Cincinnati, the United States Public Health Service states that in that city the tuberculosis morbidity is three times as great in the tenement-house district as in the area where better housing prevails. It is said that doubtless the true explanation of the lower tuberculosis mortality in such cities as Detroit and Cleveland with high rates of population increase, while Cincinnati and Baltimore with relatively small population increases have high tuberculosis rates, is that where the population increase is rapid new buildings are erected to take the place of old, unsanitary structures, and *better housing conditions prevail*.

In an address delivered at the Third Annual Conference of Massachusetts Planning Boards by George B. Ford, consultant to the Committee on the City Plan of the Board of Estimate and Apportionment of New York City, he says that "for the general public or before the courts a map showing by a dot the distribution of each case of tuberculosis compared with a dot map showing the distribution of the whole population of the city is a most effective argument, because in every instance the cases of tuberculosis are bunched where the congestion of population is the greatest."

A strong summary of the situation as regards housing and tuberculosis is given by A. Maxwell Williamson, M.D., B.S.C., in "The British Journal of Tuberculosis," July, 1915:—

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<sup>1</sup> An Investigation of Housing Conditions of Cleveland's Workingmen, by the Division of Health, Bureau of Sanitation, April, 1914.

The key to the situation [tuberculosis] lies unquestionably in the housing question. If statistics prove anything, they prove to the hilt that the disease originates and thrives in direct proportion to the unsatisfactory nature of the house and its surroundings; and they prove invariably that an improvement on these conditions is followed, as by the law of cause and effect, by an immediate fall in the tuberculosis rate. One almost wonders why we are so slow to learn these facts. Every local authority knows them well, and every medical officer of health, I am satisfied, is intimately acquainted with them; but it must be admitted that the progress in housing reform is, to say the least of it, not in proportion to our knowledge in regard to these matters. Innumerable illustrations exist of the improvement which follows the outlay of some expenditure in improving the housing conditions, which ought to serve to convince many of us who might be slow to believe. Possibly every local authority can furnish its own statistics. We in Edinburgh certainly can. Wherever improvement schemes have been carried out, an immediate improvement has primarily been noticed in the tuberculosis death rate. In every large center of population precisely the same experience has been met. . . .

Pulmonary tuberculosis is a disease which in 70 per cent. or 80 per cent. of cases occurs in houses of three rooms and under; the number of cases is larger in two-roomed houses than in three; larger in houses of one room than in two; and the number of cases of tuberculous disease increases almost in direct proportion to the number of small houses in any district or ward of a city. . . .

Preventive measures center largely in the housing question, and, irrespective of cost, there is an urgent need, in the light of our present day knowledge, of dealing more effectively than has heretofore been the case with congested areas, dense foci of population, and unsanitary dwellings.

In the report of the English Land Inquiry Committee, 1914, it is declared (p. 31, Vol. 2) that "*Nothing is more certain than that the overcrowded and unsanitary dwelling house is the home of tuberculosis.*" Even a bacteriologist of world-wide repute — Dr. Robert Koch — admitted the truth of this proposition. Speaking in St. James's Hall, London, on July 23, 1901, he said: —

Every medical man who has often entered the dwellings of the poor knows how sad is the lot of consumptives and their families there. The whole family have to live in one or two small, ill-ventilated rooms. . . . However cautious he may be, the sufferer scatters the morbid matter secreted by his diseased lungs every time he coughs, and his relatives close beside him must inhale this poison. Thus whole families are infected. They die out, and awaken in the minds of those who do not know the infectiousness of tuberculosis the opinion that it is hereditary, whereas its transmission in the cases in question was due solely to the simplest processes of infection, which do not strike people so much, because the consequences do not appear at once, but generally only after the lapse of years.

Often under such circumstances the infection is not restricted to a single family, but spreads in densely inhabited tenement houses to the neighbors. But if one investigates these matters more thoroughly one finds that it is not poverty *per se* that favors tuberculosis, *but the bad domestic condition under which the poor everywhere, but especially in great cities, have to live.* For, as the German statistics show, tuberculosis is less frequent, even among the poor, when the population is not densely packed together, and may attain very great dimensions among a well-to-do population when the domestic conditions, especially as regards the bedrooms, are bad. *So it is the overcrowded dwellings of the poor that we have to regard as the real breeding-place of tuberculosis;* it is out of them that the disease always crops up anew, and it is to the abolition of these conditions that we must first and foremost direct our attention if we wish to attack the evil at its root, and to wage war against it with effective weapons.

The Land Inquiry Committee continues:—

*We find that over one-half of the patients under the care of these institutions [tuberculosis dispensaries] live in dwellings with one or two rooms only, while another one-fifth live in dwellings of three rooms only. Of the 1,210 patients dealt with in these reports, about 169 were found in one-room dwellings. Of these 169, about one-half live with 3 to 5 persons in a single room. Four hundred and seventy-nine of the 1,210 patients live in two-room tenements, about one-half of them with from 4 to 11 other persons.*

In the report of the Paddington and Kensington Dispensary the following passage occurs:—

Badly ventilated, overcrowded bedrooms, full of prerespired air, and the fact that such rooms and even frequently the same bed, are shared with a consumptive patient by other members of his family, are probably responsible for more tuberculosis than any other one single factor.

*Delinquency and Deficiency.* — Dark rooms in overcrowded, unsanitary tenements, with every foot of available ground covered with buildings, where the street is the playground and the outlook is on brick walls, stone pavements and gutters, cannot be expected to produce a high type of citizens. We expect as a matter of course that the children reared in these crowded, unhealthful, unwholesome, unattractive homes, where there is no opportunity for normal living and natural development, will frequently be either morally or physically defective, or both. It would surely be profitable for the Commonwealth, for materialistic, economic reasons alone, and even regardless of humanitarian considerations, to rear all its children in a physical environment helpful, not antagonistic, to good citizenship. Herewith are some pertinent facts and competent testimony regarding the relation between delinquency, deficiency and the wretched homes which many of the poor inhabit.

Miss Harriett Fulmer, superintendent of the Visiting Nurses' Association of Chicago, makes this statement: —

Two-thirds of the delinquent children come from homes where dirty, ill-ventilated rooms predominate; two-thirds of the physically ill children from the same; one-third of the shiftless mothers from the same; two-thirds of the deserting fathers from the same. In a study of 50 backward children in an ungraded school, 43 occupied homes that it should have been the business of the State to see did not exist.

Judge E. E. Porterfield of the Juvenile Court of Jackson county, Missouri, says: —

The offence of the juvenile delinquent is the natural outcome of the wretched surroundings in which he has had to live. Give a child a suitable home and reasonable parental affection, care, control and training, and he will, in a great majority of cases, become a good citizen.

Louise deKoven Bowen, president of the Juvenile Protective Association of Chicago, in "Safeguards for City Youth at Work and at Play," states that "The members of the Juvenile court committee gradually discovered that the city was full of dangerous spots for children. Year after year . . . a straggling procession of children living under the same conditions, exposed to the same temptations, wended its way in and out of the court. . . . Nearly 90 per cent. of the boys in the county jail come from the congested districts of the city where the neighborhood conditions are very bad, and the boys are surrounded on every side by evil influences. The home is bad, saloons line the streets, and at the back doors are the railroad tracks and dumping grounds."

A map showing cases of juvenile delinquency in the city of Newark brings out conclusively the fact that where congestion of population is the greatest, there juvenile delinquency is most frequent.

In a prospectus for the Tenement House Improvement Company, published in the "Pittsburg Housing Survey," appears this statement: —

This city is already aroused to the necessity of caring for the children before they become criminals, but these efforts are of little value unless strengthened by the influence of decent and respectable homes.

The investigators into the housing conditions of Cleveland's workingmen say that "moral contagion is more virulent than physical contagion. As a result, we find even a greater proportion of crime, delinquency and dependency coming from District A, as compared with other districts, than of contagious disease or tuberculosis. Pin maps that show where the delinquent children that pass through the Juvenile Court come from are blackest in District A" ("the worst" district).

In various housing improvement schemes in Liverpool, delinquency was affected as follows: "In Adlington Street offences of persons residing in the neighborhood, which in 1894 amounted to 202, fell in 1904 to 4. In the Hornby Street scheme they fell from 170 in 1901 to 52 in 1912, and in the Burlington Street scheme, when the whole population were housed, in 1905,

before the demolition, the offences were 46, whereas in 1912, after demolition, the offences were 14. The figures are significant, because the housing department takes pains to secure as tenants those who have been dispossessed through its operations. The figures therefore indicate real personal regeneration."

A London County Council return some years ago gave the following figures on lunacy:—

	Persons per Acre.	Lunacy Rate.
London, . . . . .	58	1.9
Bethnal Green, . . . . .	171	6.7
Holborn, . . . . .	186	8.2
Strand, . . . . .	143	11.0

The "garden village" of Port Sunlight is situated about 5 miles from Liverpool, across the River Mersey, near the city of Birkenhead, and has a population of about 3,000. It has all the attractions and advantages of the much discussed garden cities of England. It is a purely private business enterprise on the part of Lever Brothers, manufacturers of soap. Sir William H. Lever says that business efficiency demands better housing conditions for employees. As a result of his investigations he found that the loss of time through sickness was over 10 per cent. of a possible year's work under ordinary conditions, and that the death rate is over 25 per 1,000 where the houses are crowded 50 to the acre. If houses are built as in Port Sunlight at not more than 12 to the acre the death rate will be under 14 per 1,000, while the loss of time from sickness will be a negligible quantity. In regard to mental and moral deterioration of slum dwellings as compared with that of "garden cities," he says: "Surround a home with slums and you produce moral and physical weeds and stinging nettles. Surround a home with a garden and you produce the moral and physical beauty and strength of the flower and the oak."

The favorable environment of Port Sunlight has had its effect upon the health and happiness of the people, particularly the children. A comparison of school children in those county council schools of Liverpool where they are mostly of the

laboring classes, with those in the Port Sunlight schools, the parents of whom are also of the laboring classes in regular employment but with the difference that the houses in which the children live are built with ample air space, not more than 7 to the acre, shows the following remarkable results:—

The average height and weight of the boys were as follows:—

	Height (Inches).	Weight (Pounds).
At seven years of age:—		
Council schools, . . . . .	44.3	43.0
Port Sunlight schools, . . . . .	47.0	50.5
At eleven years of age:—		
Council schools, . . . . .	51.8	59.0
Port Sunlight schools, . . . . .	57.0	79.5
At fourteen years of age:—		
Council schools, . . . . .	56.2	75.8
Port Sunlight schools, . . . . .	62.2	108.0

Another “garden village,” Bournville, near Birmingham, shows similar results. The average height of the Bournville boy of eleven years was 4 feet, 9 inches, and the average height of the Birmingham slum boy of eleven years, 4 feet, 2 inches. The average weight of the Bournville boy of eleven years was 69 pounds, and the average weight of the Birmingham slum boy of eleven years was 53 pounds. The greater chest measurement of the Bournville boy over the Birmingham slum boy was 3 inches.

A study of the children from the poor and good tenement districts in Glasgow shows that in the poor district in average height and weight the boys are 11.7 pounds lighter and 4.7 inches shorter, and the girls are 14 pounds lighter and 5.3 inches shorter.

Ambassador James Bryce, in an address on “The Menace of Great Cities,” before the National Conference on Housing in Philadelphia in 1912, expressed his belief regarding the influence of the unwholesome environment of the unsanitary tenement as follows:—

The place in which a man or a woman dwells is vital to the character of the man or woman. . . . Depressed vitality is a most fruitful cause of intemperance. Bad housing is one of the



direct causes of that evil. Cleanliness is not only a condition for health, it is a condition for self-respect. It is a condition for the elevation of the whole life of the man or woman, that he or she should be able to feel that they are living with a standard to maintain, with an ideal to live up to, something to respect. . . . Cleanliness, health, self-respect, manners and morals all are immensely depressed by bad housing, and correspondingly raised when the environment is improved. Therefore it is impossible to attach too much importance to what you can do in that direction.

It is a matter of common knowledge that the gangs of hoodlums and gunmen that infest large cities and idle about the corners in the smaller cities are bred almost exclusively in the slums and congested tenement districts. Such places form a fertile soil that is all too fruitful of perverted youths of both sexes. The subconscious sense of the child that it has been wronged, the idleness, the somber and repulsive surroundings, and the denial of opportunity for any joy in living, foster a distorted morality and a desire for reprisals which defy society and all its rights, obligations and conventions. So from these miserable abodes issues a constant stream of wrongdoers from which the community must protect itself. The cost of protection and prosecution is many times greater than would be the cost of ensuring each family a wholesome home. "Bad housing," says John J. Murphy, with many years of experience as Commissioner of the Tenement House Department of New York City, "is especially detrimental in its consequences to the children reared under its influences. In many cases the evil influences of environment can never be eradicated. The need for the erection of institutions for the blind and hospitals for the child victims of tuberculosis, spinal meningitis and other diseases of like character is greatly intensified by bad home conditions."

Of its general effects he has this to say:—

It is not true that bad housing makes bad citizens under all circumstances, but, next to an inadequate and unwholesome food supply, poor housing stands as the most deleterious element in our civic life. Sanitary research shows how important is the reaction of adequate light and ventilation on the health, stamina

and moral character of individuals. \* Bad housing furnishes the fruitful nurseries of disease germs of all kinds, while at the same time creating conditions which prevent the building up of resistance to their inroads.

There can be no question that the three great scourges of mankind — disease, poverty and crime — are in a large measure due to bad housing in its broadest sense. Intemperance in many of its most repugnant forms may be traced to the fact that so many citizens are obliged to live in homes in which they can take neither pride nor comfort, and which make the saloon seem more desirable by contrast.

The employee living in a house inadequately lighted and ventilated is unable to perform his task with proper energy and intelligence; women compelled to live in such houses develop tendencies to irritability, which frequently leads to family disruption.

Bad housing tends to increase the tax burden of a community by requiring larger expenditures for remedial service, which might otherwise be eliminated.

The lack of proper cleanliness and decency in the exterior and interior of houses tends to reduce the self-respect of the occupants. Note how eagerly the family which has even slightly improved its financial standing seeks buildings with more attractive exteriors and better decorated rooms. It will also be found that as families descend in the social scale one of the pangs most keenly felt is the necessity for the occupancy of quarters in buildings whose general appearance indicates that they are occupied by the miserably poor.

It may be said, therefore, that there is no plane of human existence in society which the housing question does not touch. There is no form of vice, crime, debility or shiftlessness which bad housing does not tend to nurture. "Keeping up appearances" is often decried, and deserves much of the reproach cast upon it when it simply means unwarranted extravagance to maintain a position which one's income does not justify, but among the poor it is an ever-present aid to the maintenance of self-respect, and is to be encouraged rather than decried.

The English Land Inquiry Committee embodied in two thick volumes the results of a prolonged inquiry into the living conditions in Great Britain. The most important of its conclusions are summed up on pages 28 and 29 of its second volume: —

The fact that a large proportion of the population are grossly overcrowded, or have to live in houses unfit for habitation, or both, has a disastrous effect, not only on their health but their morality. . . . It often seems to the casual observer that, apart from a few gross and striking cases, the results of insanitation and overcrowding are relatively slight; and even when considerable in degree, they are not always very definite, or attributable wholly to these conditions. If it were not for these two facts it is probable that housing reform would have advanced more rapidly than it has done. But the effect of bad housing on the physique of a people is gradual, imperceptible, insidious. For accurate measurement it must be judged on broad lines and over a sufficient period of time.

*Some Communal Inconsistencies.* — City and State governments are building tuberculosis hospitals and sanatoria, maintaining day camps and dispensaries, employing corps of visiting nurses and physicians, and all the time tenements with dark, damp, unventilated rooms and unsanitary accommodations are tolerated, and are sending forth a stream of tuberculous victims that taxes the resources of the medical profession, the hospitals and the government which pays the bills. We send a man to a sanatorium for months, feed him, nurse him, care for his family, then discharge him as “cured,” and back he goes, to sleep and live in the same unwholesome environment in which he contracted his disease.

Thousands of dollars are spent to watch over and care for the health of children during the day in the schools. Fresh air is insisted upon, and for the anæmic or tuberculous open-air classrooms are built. But no thought is taken of the unhealthy tenement to which they return to eat and sleep, reduce vitality and further contract disease.

Juvenile courts are instituted, and thousands of social workers devote their lives to efforts to inspire, instruct, nurse, improve and uplift the victims of the slums and ill-kept tenements, but as a community we often turn a deaf and apathetic ear to appeals to abolish the debilitating and demoralizing environment that produces the evils which we deplore and strive to cure.

Millions are expended to maintain public schools. The sta-

bility and progress of a republic demand it. But the greatest enemy of popular education is the slum, in which the work of the public school is hampered or undone. Yet through indifference the slum also is maintained at enormous cost by the same public that supports the schools.

### 5. Will Private Enterprise meet the Need?

The great social need for a larger supply of wholesome homes has been shown in the preceding pages by setting forth the following facts:—

1. The proportion of people living in tenements in Massachusetts is constantly increasing. Such a tendency is not for the general good.

2. Unwholesome, overcrowded tenements are numerous in many cities.

3. Some of the civic effects of these conditions have been shown in—

- (a) Loss of interest in public affairs.

- (b) Loss of industrial efficiency.

- (c) Bad training and development of children because of unsuitable homes.

- (d) Undue mortality, particularly among infants and children.

- (e) Spread of tuberculosis and other contagious diseases.

- (f) Moral and mental delinquency and deficiency, particularly among the young.

Before any part of the blame for these conditions can be specifically placed upon a lack of wholesome places in which to live, it is necessary to reach a common understanding of what constitutes a shortage of dwelling houses. Unless a definition of some kind is agreed upon, discussions as to whether or not there is a shortage of wholesome dwellings can lead only to confusion. The English definition of such a shortage is given on page 59 of Volume 2 of the Land Inquiry Report:—

If in any given locality there are workmen regularly employed, or having a definite prospect of regular employment, who with existing transit facilities cannot obtain suitable houses near enough to their work to enable them to reach it without unreasonable cost or fatigue, at rentals within their income, then there is in that locality a genuine shortage of dwellings.

That such is the case in the crowded parts of Boston, Lowell, Lawrence, New Bedford, Fall River and other cities within the Commonwealth has already been shown. The people in the crowded districts pay low rentals, but when the sum they pay and the accommodations they receive are compared with the rents paid and the accommodations enjoyed by others, it is found that the poor are paying the highest rentals of any class in the community. That they are doing so because no better accommodations are obtainable within their means is a reasonable conclusion. No person would occupy an undesirable tenement if a better could be had for the same money, any more than a customer would pay a high price for poor goods if better were offered for the same money. The fact that so many thousands are living at high cost in unfit habitations is evidence of an insufficient supply of wholesome houses.

Investigators and medical officers in England dwell with emphasis on the fact that if the unfit habitations were demolished there would be no dwellings to which the people displaced might move. For the same reason it is difficult to abate overcrowding. If, through the operation of the law, overcrowding in one section is diminished, it merely means that it is increased in another. This applies not only where there are absolutely no houses available, but where the available healthful houses command rents so high that the low-wage worker cannot pay them. The necessities of the poor compel them to accept shelter in such places as are within their means, regardless of high comparative cost or unwholesome conditions. This indicates the futility of housing laws as a final solution of the housing problem. It is proper that such laws should be enacted and enforced as rigorously as circumstances will allow, but until alternative accommodations are available the evils of the unsanitary tenement can never be entirely suppressed. The utter inadequacy of investigation, restrictive legislation and inspection to cure housing evils is the lesson to be learned from the experience of thirty years of agitation in Massachusetts. More available, suitable low-cost dwellings are needed. While not enough wholesome habitations exist, poor people must live in the dwellings that greed, callous consciences and public apathy supply.

Should the 50,000 occupants of crowded, unfit Boston tenements, or those in other cities, at once seek decent homes, where would such accommodations be found?

They do not exist.

The question is asked, would the people in unsuitable tenements migrate to wholesome houses, provided a sufficient supply were available? The first answer might be that these people are living in as good accommodations as their means will afford, and that no matter how great the supply of wholesome houses might be, if the income of a family were too small to permit of their occupying such places, they must necessarily remain where they are, until the cost of better habitations can be brought within their means.

It has been said that the dwellers in the unwholesome tenements are there from choice; that they might do better if they would; that mental and moral slackness and lack of energy and better ideals, rather than necessity, cause their condition; that their aspirations and desires are on a level with their environment; that whatever opportunities were offered, they would continue to grovel in their degrading surroundings. If these statements were true, or even partly true, of a majority or even a large minority of the dwellers in unwholesome slums, then the housing question would be practically unsolvable. But that it is not true of all is shown by the constant stream of people moving from the crowded tenements of every city into the suburban districts. As soon as finances will allow, even sometimes before it can well be afforded, the family moves into more wholesome quarters. This is continuous, and seldom does any family which has removed from the congested tenement districts and established itself in a place in which it takes pride, admit that the former residence was in the slums. Conversely, the severest pang that accompanies declining family financial resources is the necessity of moving into a cheaper and still cheaper habitation. The better home heightens and the poorer home depresses self-esteem and self-respect, — two attributes upon which right living depends. In instances it may be true that persons remain in squalid surroundings from choice. But if it be admitted that some persons live in such an environment from choice when it is easily possible for them to obtain more wholesome homes,

what shall we say of an environment so bad that it reacts upon its victims, and makes some of them willing and contented to continue to exist under such deplorable conditions? And what can be said of the communal conscience which allows conditions to exist which so debilitate and demoralize its citizens? A community which permits the existence of housing conditions that debase their victims to a point where they choose to live in filth, bad air, inconvenience and indecency, may be more blamable for the moral status of the individual than is the victim himself. Certain it is that a moral responsibility rests upon every member of the community to help to eliminate such conditions.

So far as known, England is the only country that has attempted by adequate investigation to learn with approximate exactness what the extent of the shortage of wholesome homes may be. In 1906 a select committee on the housing of the working classes reported that it had abundant evidence of the insufficiency of cottages in the rural districts, and said: "The house famine in town and country which often exists in regard to the working classes is incontestable." The Land Inquiry Committee of 1914 states that "the scarcity of cottages in the rural districts is as great at the present day as it was in 1906." Apart from the replacement of existing unsanitary cottages, no less than 120,000 are required throughout rural England and Wales.

However, before recommending that the Commonwealth use public funds for the purpose of increasing the number of healthful, low-cost homes available to the poorer classes of workmen, a conclusive answer should be given to the question whether or not the need for them may be met by private enterprise and initiative. The obvious answer is no; for never yet, at any time or in any place where population increased, has private capital furnished enough suitable homes to satisfy the demand; and in places where population is stationary or declining, neglect usually reduces the supply below the need. In no country has the problem of sufficient healthful homes for workingmen been solved by private capital alone. Left to its own devices, the response of private enterprise to the enormous growth of

urban population in all civilized countries has been the conversion of old buildings into repulsive, debasing, multiple dwellings, and the erection of cheap tenements and workingmen's barracks with their accompanying evils, squalor and vitiating influences. It has been wholly unable to afford healthful housing at rents within the means of the poor.

The evidence of a shortage of suitable, available dwellings for the lower-paid workmen comes from every land. The clearest proof of this fact is the action by all progressive foreign governments in aid of a larger supply. This aid takes numerous forms. A variety of exemptions or concessions in taxes or fees or other forms of subsidy to building associations and others are granted in Austria, Belgium, France, Germany, Italy, Hungary, Roumania, Spain, Switzerland, Australia and New Zealand. Enormous amounts of public funds are loaned, and private loans are guaranteed by governments, to local authorities in Austria, Belgium, Denmark, Germany, Great Britain, Hungary, Luxemburg, Sweden and Norway; to building associations in Austria, Belgium (by savings banks whose deposits are guaranteed), Denmark, France, Germany, Great Britain, Italy, Luxemburg, the Netherlands, Sweden and Norway; to employers in Germany, Great Britain and Luxemburg; and to individuals in Germany, Great Britain, Australia, New Zealand and Norway. National, State and municipal governments build directly for their own employees in Austria, Germany, Hungary, Switzerland and Roumania; and in France, Germany, Great Britain, Italy, Cuba, some South American countries, Australia and New Zealand they build directly for working people generally. The purchase, preparation and sale or lease of land to working people directly, or to working people through building or other associations, is common in Australia, New Zealand, Germany, Great Britain and Ireland and many of the smaller countries of Europe and South America.<sup>1</sup>

All these activities were undertaken in these countries after investigation and conviction that there was great need for more homes, and that private enterprise would not supply them.

In this country, aside from individual home building for per-

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<sup>1</sup> See Homestead Commission's first and second annual reports. See also Bulletin No. 158, United States Bureau of Labor Statistics.



sonal use, there seem to be two kinds of construction, — the cheaply built, rather gaudily decorated but often attractive speculative suburban house, for which the better-paid workman often pays in rent or purchase price more than he can afford and more than it is worth; and the tenement or apartment. The kind of construction at present in vogue in the suburbs is too costly and much of it too distant to meet the needs of the majority of low-paid city tenement-house dwellers. Private enterprise is building expensive apartment houses in the city and desirable homes in the suburbs for the better-paid portion of the community, but yard space even there is being scrimped more and more, and children have difficulty in finding places to play. Private capital is also to a small degree initiating movements for garden suburbs in the United States in which the desire for profit is subordinated to the interests of the residents. The accompanying table (page 70), comprising all the ventures of this character of which we are aware, shows how meager the results of such movements yet are in this country.

TABLE 12. — *Garden Suburb Movement in the United States.*

[Fragmentary list of operations of companies organized with limited dividend, or in other ways not primarily for profit. Only estates with density of families less than 15 included.]

NAME OF COMPANY.	Location.	Date begun.	Dividend (Limit).	Property Value.	Area (Acres).	Families per Acre.	Number of Families.
Goodyear Heights Realty Company, .	Akron, O., . . . . .	1912	N. P. <sup>1</sup>	\$445,000	400	4	84
Albany Home Building Company, .	Albany, N. Y., . . . . .	1911	5 per cent.	177,000	6	11	43
Billerica Garden Suburb Company, .	Billerica, Mass., . . . . .	1914	5 per cent.	38,000	56	5	21
Boston Dwelling House Company, .	Boston, Mass., . . . . .	1912	N. P. <sup>1</sup>	600,000	30	13	45
Westerly Gardens, . . . . .	Bound Brook, N. J., . . . . .	1911	N. P. <sup>1</sup>	98,500	5	10	48
Sage Foundation Homes Company, .	Forest Hills, Long Island, N. Y., .	1911	N. P. <sup>1</sup>	500,000	200	5 <sup>2</sup>	172
Framingham Associates, . . . . .	Framingham, Mass., . . . . .	1907	N. P. <sup>1</sup>	60,000	3 <sup>2</sup>	8 <sup>2</sup>	51
City and Suburban Homes Company,	Homewood, N. Y., . . . . .	1896	5 per cent.	1,039,300	30	8	248
Modern Homes Company, . . . . .	Youngstown, O., . . . . .	1910	5 per cent.	172,200	7	13	88
Total (1915), . . . . .	. . . . .	—	—	\$3,130,000	737	6.5	800

<sup>1</sup> Not primarily for profit.

<sup>2</sup> Approximate.

For city workers with small incomes, who constitute the majority of our working population, no provision is made but the crowded and often unsanitary tenement.

But if the need for a greater number of low-cost wholesome houses is great, why does not private capital meet it with a sufficient supply? First, the permanent nature and high cost of a house are serious obstacles to plentiful production. If a shortage of articles which are quickly consumed occurs, more of such articles are made at once and sold and consumed while the high demand lasts. But a house will not be quickly consumed. It may outlast the immediate demand. Moreover, the outlay is large. The builder or investor must therefore be fully convinced that there is an immediate and will be a long-continued demand for the house, before money will be forthcoming to build it. Also, the natural desire of landholders to secure the highest possible price discourages construction. Land is limited in quantity and is not perishable. The owner knows that with growing population the demand and value are bound to be higher, and a price is asked which often makes house building a doubtful venture. Profits appear to be small and uncertain. These facts afford a conclusive answer to the question, Will private enterprise meet the need? The only thing that will surely attract capital into any enterprise is the prospect of profit. It is seldom interested in any undertaking for merely personal reasons or solely for the purpose of promoting the public good; nor will it follow any rules or live up to any desired conditions or requirements unless it secures a gain in so doing. The cheap unsanitary tenements pay best, therefore that is the kind of tenements we have in large numbers. The single family house with its small garden plot seems to offer no attraction to capital. If it can be demonstrated that such an investment can be made with certainty of good returns, doubtless more of such homesteads may be built. In this manner the problem of "office" housing is in way of being solved. When some thirty years ago capital found that the construction of large office buildings with perfect provision for comfort and utility was profitable, enough money was found to satisfy the immediate need; large numbers of such buildings were provided at great cost, and tenants flocked by thousands from

out-of-date chambers and garrets into modern, attractive structures with every convenience that ingenuity could suggest. Similar results would probably follow if it could be shown that the provision of low-cost, wholesome homes for people of small means were a "paying" enterprise. The universal shortage seems to point with certainty to the fact that though tenements may be cleaned and other improvements may make living in them somewhat less undesirable and demoralizing, there will never be enough healthful dwellings to supply the needs of the community unless some kind of a demonstration proves that it is a reasonably safe and profitable investment.

Every citizen is entitled to an opportunity for rearing his family in a wholesome home within his means and without exploitation. It is essential to the welfare of this Commonwealth that he should have such opportunity. The breeding and rearing of children in the environment which now surrounds thousands, is nothing less than a public calamity.

If private enterprise fails to provide enough decent houses for all, where is the supply to come from except through government aid and encouragement? Experience nearly everywhere that such a method has been tried shows that it can be adopted without ultimate cost to the public treasury.

It is often stated that the income of large numbers of workers is so small that it forbids their paying enough in rent to cover the cost of a wholesome home and afford a commercial profit. The present situation of a need for such houses, and no indication of any movement to satisfy it, emphasizes the presumption that the business is unprofitable for private enterprise. If this is true, two alternatives only seem to be possible, — increase the income, or build enough government houses to meet the need.

This Commission admits its reluctance to accept the latter alternative in its entirety, and therefore but seeks the means and opportunity to make a careful *experiment* for the purpose of ascertaining *whether or not it is true that suitable low-cost homes for low-paid workers may be profitably built*; and we hope that if it can be shown that there is a reasonable profit in the construction of such homes, there will be but little difficulty in securing enough private capital for such enterprises.

Moreover, there seems to be a certainty that the family income can be appreciably increased by the intensive cultivation of a garden of suitable size, under proper instruction, supervision, and, if need be, some compulsion.

A study of the better housing movements abroad seems to strengthen the statement that the shortage of low-cost dwellings arises because apparently there is no profit in building them. In the countries notable for such work, nearly every one of the garden city, model tenement and workingmen's home-building ventures is fortified by large underlying government loans at low interest rates. A few are encouraged by the loans and supervision of large business concerns. However, government aid seems nowhere to have discouraged private enterprise, but rather to have stimulated and encouraged the flow of private capital into this field, though not yet in amounts as great as are needed. Where foreign governments have extended State funds and credit for workingmen's homes, private capital, far from being deterred, has come into the field in greater amounts. The demonstration made by governments of the safety of the policy of long-time payments to cover both interest and principal has helped to free private capital for similar enterprises. But only where government initiative or example, or State aid or facility, have shown the practicability of providing single houses for workingmen on such a basis as to convert them from rent payers to home owners has private capital come into the field to compete for the enormous demand stimulated by the State.

#### **6. Opportunities for More Wholesome Homes.**

The pitiful fact in connection with unwholesome congestion of population is that it is utterly needless. Not far from every congested, unwholesome tenement district are to be found stretches of unoccupied land, much of it cumbered with rubbish and garbage, an offence to the eye and to the sense of beauty and orderliness, a danger to health, and a means of propagation for noxious insects and weeds. A few of the larger cities of the State are somewhat restricted in area, are quite fully built over, and are surrounded by cities and towns also well built over or reluctant to part with any of their unoccupied territory. Cambridge, Chelsea, Lawrence and Somer-

ville are the most important of the municipalities so situated. In none of these cities is there any great amount of unoccupied ground. According to the census of 1910 they show a density of population of 23, 23, 18 and 29 persons per acre, respectively, with an area for Cambridge of 4,570, Chelsea 1,392, Lawrence 4,636, and Somerville 2,634 acres. In Boston, however, with a density of population in 1910 of 26 persons per acre, the assessors' reports show very great amounts of unused land, totaling in 1914 7,928 acres, which emphasizes the intensity of concentration in certain parts of the city. When it is considered that 1 acre will comfortably house 8 families, comprising 40 individuals, in single-family houses with a garden for each, it is seen that even in the cities of restricted territory and apparent density of population there should be no unwholesome congestion. It is evident that there is room in each of these five most densely populated cities of the Commonwealth for a considerable increase in the number of its inhabitants without undue congestion, provided adequate city planning and housing laws were enforced to insure proper distribution.

If it can thus be shown that undue congestion of population in unwholesome tenements is unnecessary in the most densely populated cities in the Commonwealth, and that there are in each of these cities ample opportunities for a sufficient supply of healthful homes, how much more true is the statement that there is ample room in the less densely populated cities to supply whatever need for better housing may exist. If lack of room compelled the inhabitants of Massachusetts to huddle together in unhealthful, demoralizing congestion, we might despair of any progress other than the elevation of a few above the sad condition of the great mass of humanity. We might steel our hearts against sympathy with the pitiful lot of the poor, and lay the blame upon some power higher than ourselves. If the entire area of all these cities and the towns surrounding them were in full, intensive use, we might give up in despair the problem of undue congestion of population. But the land is not in use. Not half the opportunities within cities for healthful habitations are improved. Even in the most crowded of our cities there is room to spare. While hundreds of thousands are losing health and hope in crowded tenements, tens of thousands of acres within the limits of the cities them-

selves are untouched, and just outside their borders are limitless opportunities for expansion.

Table 13 shows the area, population and number of persons per acre in 33 Massachusetts cities, according to the census of 1915.

TABLE 13. — *Area, Population and Density of Population in 33 Cities of Massachusetts, 1915.*

	Acres.	Population.	Persons per Acre.
<b>The State,<sup>1</sup></b>	<b>5,144,960.0</b>	<b>3,693,310</b>	<b>.7</b>
Beverly,	9,832.0	22,959	2.3
Boston, <sup>2</sup>	27,612.0	745,439	27.0
Brockton,	13,744.7	62,288	4.5
Cambridge,	4,570.2	108,822	23.8
Chelsea,	1,391.8	43,426	31.2
Chicopee,	16,448.0	30,138	1.8
Everett,	2,396.7	37,718	15.7
Fall River,	24,371.9	124,791	5.1
Fitchburg,	18,134.0	39,656	2.2
Gloucester,	16,929.2	24,478	1.4
Haverhill,	22,934.0	49,450	2.2
Holyoke,	10,752.0	60,816	5.7
Lawrence,	4,636.4	90,259	19.5
Lowell,	9,131.3	107,978	11.8
Lynn,	7,177.2	95,803	13.4
Malden,	3,285.1	48,907	14.9
Marlborough,	14,104.7	15,250	1.1
Medford,	5,619.5	30,509	5.4
Melrose,	3,070.2	16,880	5.5
New Bedford,	12,669.4	109,568	8.6
Newburyport,	5,700.6	15,311	2.7
Newton,	11,733.0	43,113	3.7
North Adams,	12,096.0	22,035	1.8
Northampton,	25,920.0	21,654	.8
Pittsfield,	26,944.0	39,607	1.5
Quincy,	10,648.3	40,674	3.8
Salem,	5,233.5	37,200	7.1
Somerville,	2,634.3	86,854	33.0
Springfield,	20,296.0	102,971	5.1
Taunton,	31,099.2	36,161	1.2
Waltham,	8,650.1	30,154	3.5
Woburn,	8,388.4	16,410	2.0
Worcester,	24,642.8	162,697	6.6

<sup>1</sup> According to estimated number of acres, 1910 United States Census.

<sup>2</sup> Excluding 2,683 acres flat, marsh and under water.

It takes but little study of the table to show how needless undue congestion in unsanitary tenements is in such a city as Fall River, with only 5.1 persons per acre, an infantile mortality record of 160.7 per thousand births in 1914, and a tuberculosis mortality record of 127.8 per hundred thousand persons in 1910. Compare it with Medford, with 5.4 persons per acre and an infantile mortality record of 31.9 per thousand births, and a tuberculosis mortality record of 87.3 per hundred thousand persons, and consider the mortality rates of other cities known to have both undue congestion and large amounts of vacant land.

As the number of persons per acre is much lower in other cities than in Boston, it is safe to conclude that the proportion of vacant land is much greater. That proportion in Boston is 28.7 per cent., with a density of population of 27 per acre, and it probably is more than 50 per cent. of the total land in the other cities of the State. There are 422,796 acres of land within city limits in Massachusetts. If, as seems true from a consideration of the Boston situation, one-half of that land is vacant, then 211,398 acres of land *within city limits are unoccupied*, — an economic waste beyond the power of calculation. Until these vacant lots are needed for more intensive uses, they might well afford opportunity to many family groups and individuals, adults or minors, particularly school children, to learn the most fundamental of all vocations, — agriculture. Logically, the first step toward the relief of undue congestion is to enable as many as will of its victims to maintain themselves elsewhere. The utilization of these idle acres by covering them with homes and gardens would be of great economic advantage to the Commonwealth, and of great economic, industrial, physical, moral and mental benefit to those taking advantage of the opportunities offered.

As for the situation in the State outside the cities, a report of "Massachusetts Agricultural Resources," published by the Massachusetts Agricultural Department in 1911, states that (pp. 25, 26, 28 and 29) —

Orchard land in Oregon and Washington, ready to set to fruit trees, is selling at from \$200 to \$1,000 per acre. In Massachusetts, land for the same purpose can be bought at prices ranging



from \$15 to \$100 per acre. Best market-garden land may be had for less than \$250 per acre. Farms with buildings are selling at a rough average price of \$25 per acre, with occasional offerings as low as \$10 per acre. . . .

Statistics show that the total area of parcels of agricultural land in 1905 was a little more than 4,000,000 acres. About 1,000,000 acres were under cultivation, 1,200,000 acres were uncultivated and 2,000,000 acres were in woodland. . . .

It is estimated by the State Forester that there are about 700,000 acres of clearings or worn-out pastures which are growing up to undesirable hardwoods or brush, which at the present time constitute practically worthless tracts. Massachusetts soil is richer in mineral plant food; Massachusetts products are as good as any; Massachusetts has more than 3,000,000 people; within 10 miles of Faneuil Hall market, Boston, there are 1,000,000 people; 1,000,000 acres are under cultivation and 500,000 more could be planted to profitable crops; no farm is more than 150 miles by railroad from the biggest market or more than 50 miles by railroad from a local market. . . . We have the soil, the products, the markets and the transportation facilities. We need better soil, products, markets and transportation facilities, but, most of all, we need more and better farmers.

The land is calling to the investor for the money that has so long been going into the great far-away west.

But the number of persons per acre, small or great, when considered alone, affords no conclusive evidence of harmful congestion of population. Many hotels and some apartment houses bring together hundreds of persons per acre and house them in a manner that leaves but little to criticize beyond the fact that no open space is left for children. Plans have been shown by which from 1,000 to 1,500 persons per acre might be housed with every necessity for proper sanitation, light, air and comfort. Such plans could be carried out, however, only when a single authority controlled a large area where concentration of population was inevitable. The city of London has constructed block tenement buildings of this character which contain a total of 6,420 dwellings. Great care is taken to estimate in advance the cost and probable income of such properties, so that they may not be a charge upon public funds. The receipts are expected to cover all expenses, together with a

sinking fund that will in sixty years extinguish the indebtedness. There is a legal obligation to rehouse on the same site in the new buildings the persons displaced from the dwellings torn down. The loss of rent by empty tenements is given as 2.59 per cent., and the loss through unpaid rents is sixteen one-hundredths of 1 per cent. of the gross rental. The census of March, 1915, showed 35,570 persons living in these dwellings, or 1.27 persons per room. The birth rate was 25.22 per 1,000 and the death rate 9.53 per 1,000. Other English cities have constructed tenements for working people, some of them at a cost to the public treasury above the income received. In such cases it was deemed that the social benefits more than offset the public cost. It is to be noted that there will always be a certain amount of concentration of population in large cities. While few persons, if any, desire to live in the baneful environment of the unwholesome tenement, many who live in the thickly populated districts are there because, for convenience or preference, they wish to be there. But in the areas of greatest density, undue congestion of population might still be relieved by proper planning and distribution, so that even if no use at all were made of the unoccupied territory available, unwholesome congestion would still be utterly needless.

As for "homesteads or small houses and plots of ground,"<sup>1</sup> the opportunities for them are numberless in and about every city and large town in the Commonwealth. The city of Boston has 27,612 acres of usable land.<sup>2</sup> Of this area, only 8,755 acres, or 31.7 per cent., are occupied by buildings; streets and ways take up 6,100 acres; parks, parkways and playgrounds, 3,600 acres; 7,928 acres, or 28.7 per cent. of the whole area, are vacant; all of it taxable property, excepting some land owned by the city where no building is attached. It excludes public and untaxed property. The instructions to assessors defining what to classify as vacant or unoccupied land, read as follows:—

For vacant land take rear or even front land if there is a very disproportionate amount attached to a house and the number of

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<sup>1</sup> The first homestead act, chapter 607, Acts of 1911.

<sup>2</sup> Statistics Department, 1914.

square feet is quite large; also a lot of land upon which a little shop or other temporary building belonging to other than the owner of the soil may be placed. . . . Do not take as vacant land the large tracts held by railroads, charitable institutions, public institutions, or by corporations or firms that require large tracts for the prosecution of their business, unless such lands are disconnected with their works. . . . In Wards 1, 20, 21, 22, 23, 24 and 25, if the feet of land exceed 20,000, add to the value of the building 10,000 feet and call the balance vacant land.

For more easy reference, the figures showing the area and division of land in Boston are tabulated, as follows: —

TABLE 14. — *Area and Division of Land of the City of Boston.*

	Acres.
Land, . . . . .	27,612
Marsh and flats, . . . . .	2,693
Total, . . . . .	30,295

	Acres.	Per Cent.
Occupied by buildings, . . . . .	8,755	31.7
Streets, alleys, etc., . . . . .	6,100	22.1
Parks, playgrounds, etc., . . . . .	3,600	13.0
Public lands vacant, . . . . .	1,229	4.5
Private lands vacant, . . . . .	7,928	28.7
	27,612	100.0

In addition to the 27,612 acres there are 1,546 acres of marsh and flat lands and 1,137 under water. In 1912 there were 139,706 families in Boston, of which 114,312, or more than 81 per cent., were living in rented dwellings. Twenty-three thousand four hundred and ninety-six families, or nearly 17 per cent., own their own homes, of which 12,731, or 54.2 per cent., were encumbered with mortgages.<sup>1</sup>

<sup>1</sup> Statistics Department, 1914.

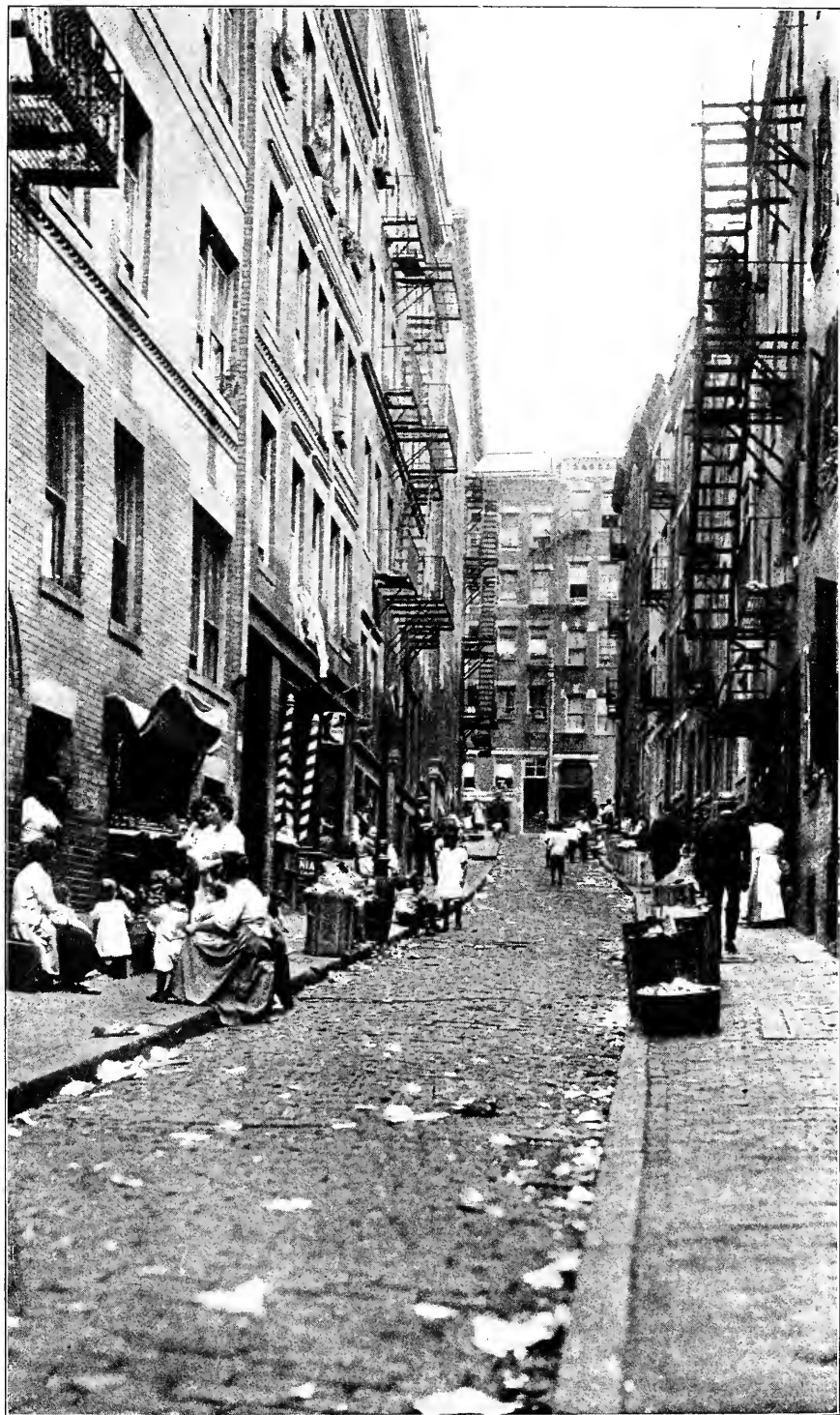
If one-third of the 7,928 acres now unoccupied were deducted for streets and open spaces, there still would be room upon the remaining 5,285 acres within the city limits for housing 42,280 families, more than 200,000 persons, in single-family houses with gardens. The number that could be accommodated in tenement buildings constructed in the manner indicated on page 77 is so great as not easily to be determined. The point sought to be made clear is that overcrowding and unwholesome homes are needless, while 8,755 acres furnish space for all the buildings, public and private, in which Boston's business is transacted and in which the residents make their homes, and 7,928 acres are not being used. The problem is one of good sanitation and proper distribution, which imply better houses and efficient city planning.

A photographic contrast between some phases of real life in different parts of Boston will serve to emphasize both the urgent need of immediate action to cure the evils illustrated and the needlessness of bad conditions. The first three photographs show life as it actually is, not only in Margaret, Morton and Salem streets, but in numerous other streets. Similar pictures could be secured by scores in various parts of the city. No effort was made to select a day when conditions were worse than they usually are, nor were streets chosen which were thought to be bad beyond all others. The desire was to secure a fair presentation of the sordid environment in which Boston is rearing many thousands of its children. In Margaret and Morton streets a few anæmic window-gardens make a feeble struggle to brighten the gloom and protest against the wretchedness of their somber surroundings, showing that even under the most adverse conditions the desire for beauty and a better mode of living is not lost.



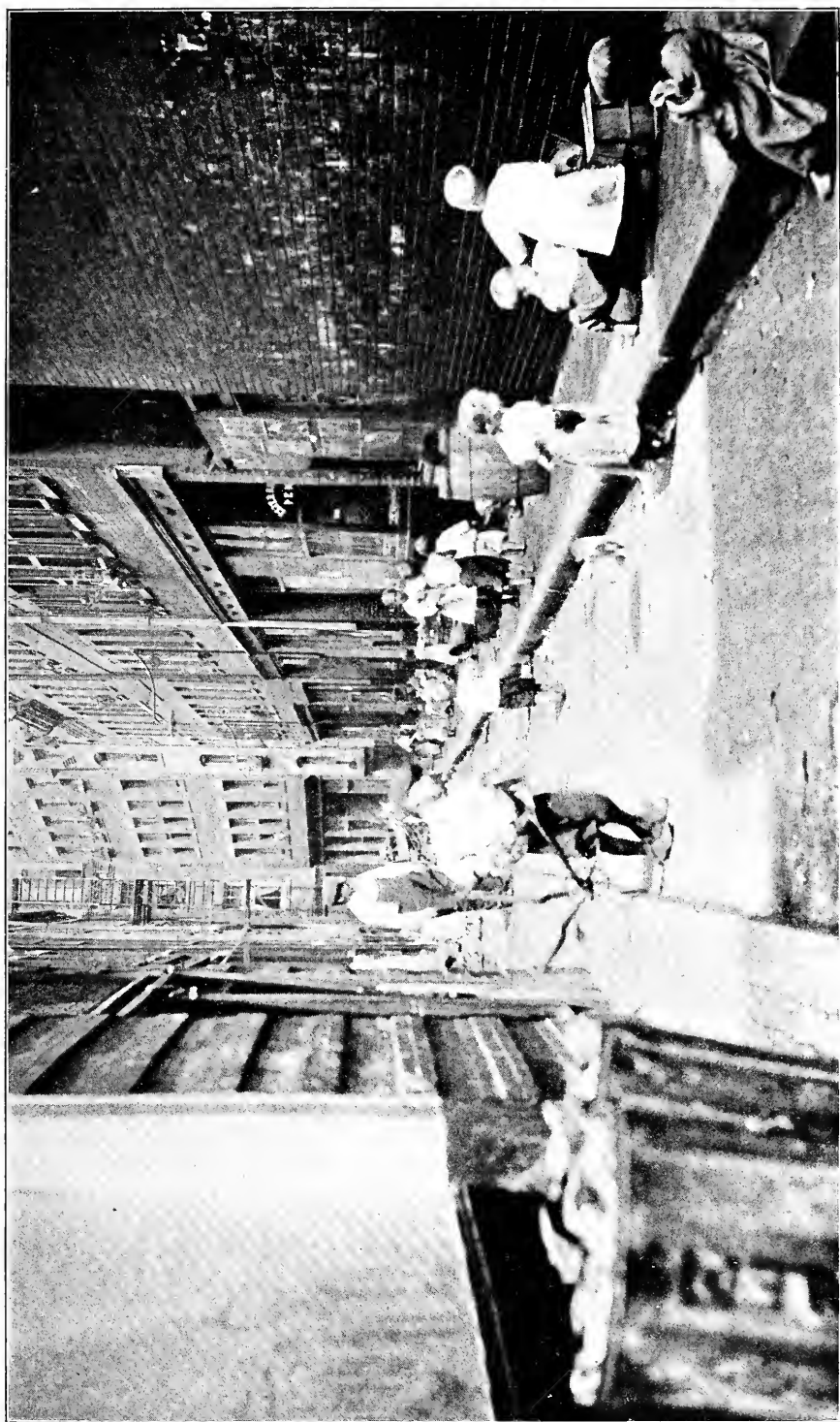
*Salem Street.*

(F) Why should we transact Business, —



(G) And rear Children, —

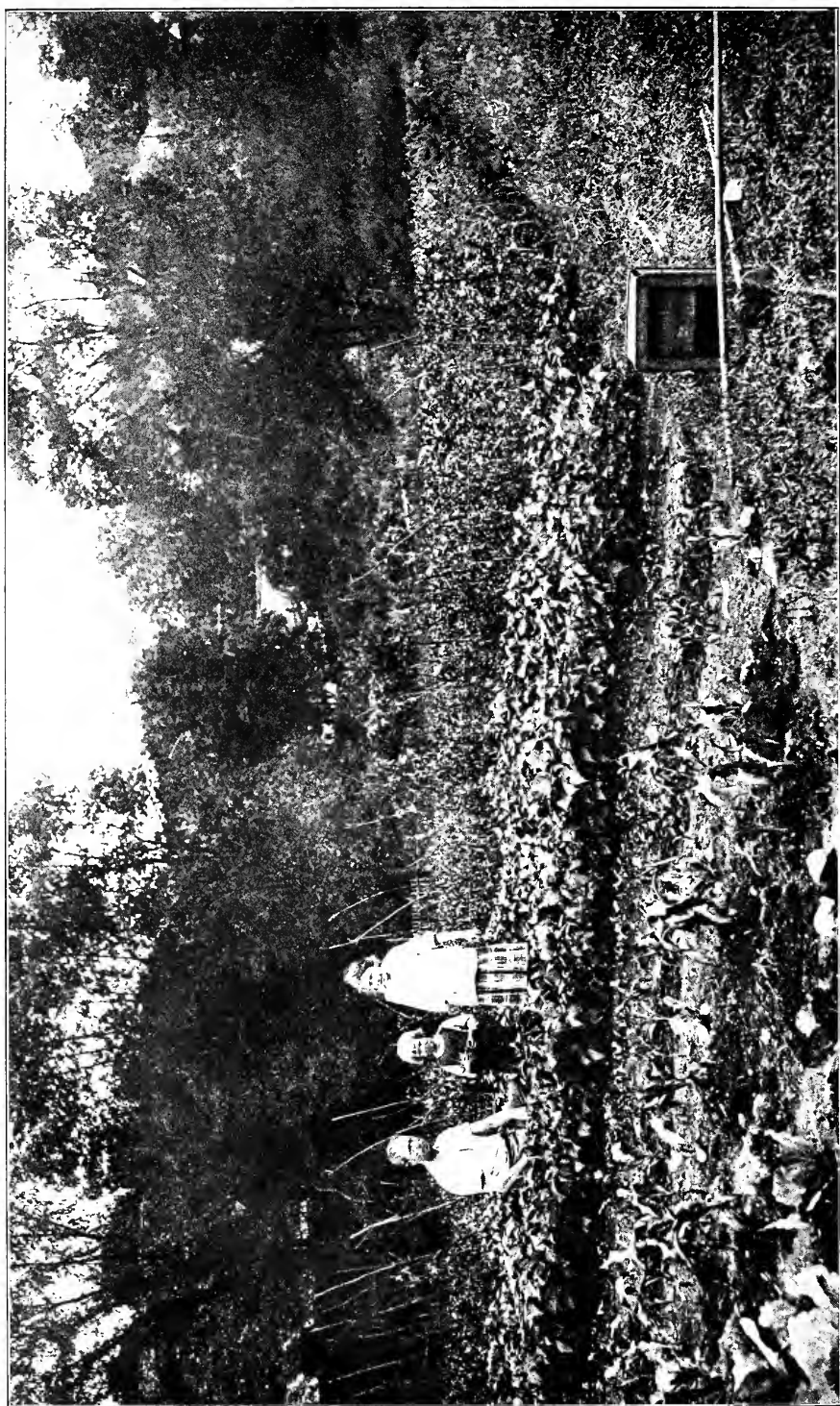
*Margaret Street.*



*Morton Street.*

(H) And turn them out to play in Unnatural, Repulsive Places like these, when —





*Jamaica Plain.*

(1) Thousands of Such Opportunities as this, for Work and Play, are Idle, within a Five-cent Car Ride?



## 7. Demand, Location, Cost and Kind of Homes needed.

*Demand.* — By the word “demand,” as used in this section, is meant a conscious desire to obtain a certain thing, as distinguished from what is indicated by “need,” which suggests that whether the thing is desired or not it is necessary to the person’s welfare that it should be had.

No official statistics are available showing the extent of the demand, or desire, among “laborers, mechanics, factory employees and others” for the ownership of wholesome homes. It is doubtful if it is possible to reduce it to figures. It would be difficult by any kind of investigation to ascertain the exact number of persons living in cities who to-day long for an opportunity to move from crowded urban quarters to a suburban or rural home, and that number might easily be vastly increased or diminished within a short time by changing economic or personal circumstances. Such an investigation, if it were possible, would without question emphasize the truth of the statement before made in this report, that many of those living in cities are there because they prefer city life, notwithstanding the drawbacks of higher living cost, restricted space and high rentals.

New Zealand’s experience affords a means of judging the extent of the demand for homesteads. In that country since 1893 the government has been striving to make homes, particularly rural homes, easily accessible to all who desire them. Over \$100,000,000, or more than \$1 for each inhabitant, has been borrowed and expended for land for “settlers,” or loaned to enable them to insure the success of their ventures. About 1,500,000 acres of “improved” land near cities or towns, and many millions of native or wild land have been acquired, subdivided and made available to 34,200 selectors or purchasers, under various forms of tenure. Of workingmen’s homes, 548 were built or in course of construction on March 31, 1915, making 34,749 persons who have taken advantage of the opportunities offered by the government to acquire homes. It would be interesting to know how many of these people came from urban sources, but such information is not given. Some of them already lived in rural districts, some left cities and large towns,

and some came from foreign lands. In 1911 the population of New Zealand numbered rather more than 1,000,000. Allowing for the increase which has taken place since that time, and remembering that most of the purchasers or selectors represent families, it is possibly safe to say that at least 130,000 people, or approximately 10 per cent. of the whole population, have taken advantage of the government's efforts to make wholesome homes accessible to the entire population.

In 1913 the Massachusetts Board of Education conducted an investigation to learn what proportion of tenement families would be attracted by an opportunity to learn the science and art of agriculture, as recommended by the Homestead Commission, particularly with reference to the full utilization of a suburban home with a plot of ground. The results are set forth in House 2164, 1914. Out of 500 typical tenement families investigated, 185, or 37 per cent., expressed a desire to take advantage of an opportunity for that kind of instruction. This indicates that a much larger proportion of tenement dwellers than is usually supposed would like to escape from present surroundings.

The present flow of population from center to suburbs is a marked indication that a considerable desire to escape from the tenements exists. The obstacles to such migration are many and serious. Suburban rentals and selling prices are excessive for the values offered. Landowners and manipulators, money lenders and speculative builders, look for large profits. The cost is swelled unnecessarily by the addition of many non-essential conveniences, adornments and fads, which seem to be in demand by the better-paid wage earners. Then there is the additional cost of car fares, a considerable burden upon a slender purse; and the time consumed in transit renders a suburban home inconvenient for workers employed long or unusual hours. Thus the medium and low-paid city workers can have but little chance of escaping from the tenements unless the cost of living in the suburbs can be materially reduced. But the large demand for the suburban home, coming from a restricted class of workers who alone can afford the high cost, as evidenced by the extensive building in the outskirts of growing cities, is conclusive evidence that not all who inhabit tenements desire to remain there.

The most striking illustration in this country of the eagerness of the common people to secure their own independent homes is offered by the operation of the National Homestead Law, passed in 1862, which made available for settlement an enormous public domain in the west. It afforded a constant drain of population from the eastern States, and through them from the countries of Europe. It was one of the most beneficent and successful laws of its character ever enacted, notwithstanding the fact that the abuses and violations of it were numerous and extensive. It opened up millions of acres of public lands to immediate settlement, and attracted to the western territory a virile and progressive citizenship made up of representatives of many nations. The provisions of the act made it possible for a settler to enter upon the possession of 160 acres of unappropriated land valued at \$1.25 per acre, or 80 acres of land valued at \$2.50 per acre, on payment of a fee of from \$5 to \$10. Five years of actual residence and use perfected a valid title. Later modifications of the law covered timber and mining lands. The territory available for homesteading has been practically exhausted for some years, but no one who reads the newspaper accounts of the scenes at the drawings for the division of the few reservations that are from time to time thrown open to the public can doubt the existence of a keen and very prevalent desire for home ownership. That desire overcame the hardships of poverty, distance and isolation, and created an empire inhabited by many millions of the most advanced people of the world. The entire national homestead movement evidenced an eager demand for more and better homes. The experience of foreign governments which have aided or encouraged the construction of better homes emphasizes the same point. In every country where model tenements, or suburban or rural cottages, or farms, have been made accessible to working people, and the cost brought within their means, the opportunity has been eagerly seized. None of these places remain idle or unoccupied. New Zealand has gone farther in this line than any country in the world, and the demand there was constant and increasing year by year, until 1913. In that year 2,223 workers applied for loans to enable them to secure homes, and 5,355 applied for aid in securing farms.

*Location.* — This Commission for various reasons believes that if the State should approve its recommendation for a demonstration or experiment to ascertain the feasibility and desirability of State encouragement to increase the supply of homesteads for working people and aid to acquire them, the venture could be entered upon in some manufacturing city outside of Boston to more practical purpose than in the metropolis. In some other manufacturing centers of the State, particularly the mill cities, there are considerable numbers of very low-paid workers with miserable housing conditions, yet with much unoccupied land within easy access, some within walking distance of the large industrial establishments, and much within a radius covered by a 5-cent car fare. Within 5 miles of the heart of some manufacturing communities land suitable for homesteads can be bought as low as \$50 per acre. These places show great need, and favorable opportunities for meeting it that should have much weight in considering a location for a homestead demonstration.

*Cost.* — The outside cost of these homesteads should not exceed \$2,000. This low figure would be very difficult to reach, but the means of the class whose needs ought to be met will not afford a higher. These people are receiving from \$7 to \$14 per week in wages, and are paying from \$7 to \$14 per month for rent. Fifteen dollars per month on a \$2,000 house will pay interest, taxes and insurance, and leave enough to apply on mortgage to extinguish the indebtedness in about twenty-seven years. The occupant would pay for water rates and repairs. This would allow a worker to buy at the age of twenty-five, and be relieved of rent paying at fifty-two, when age would be creeping upon him. Should a shorter term be desired, \$15 per month would satisfy the mortgage in sixteen and one-half years if the purchaser carried all charges except interest. The sum of \$15 is more than this class can usually afford to pay monthly for shelter, but results of intensive cultivation seem to show that with proper use and management a small garden would fully if not more than cover the extra cost and also necessary car fare.

The experience of the Salem Rebuilding Trust seems to prove

that the figure of \$2,000 for these homesteads can be met. After the fire in that city there were built double five-room houses of brick, with slate roof, good plumbing, bath, plenty of light and air and expansive view, to be rented to two families at \$15 per month each or sold at \$3,886, \$1,943 per house. Double houses with four rooms and bath for each family cost \$3,582. The buildings have a general appearance of dignity, solidity and wholesomeness.

There would seem to be less public need for lending State aid to acquire homesteads to the better-paid workers. Healthful suburban homes are now accessible to them, either to rent, or, with a little sacrifice, to buy. If the cost is excessive, other means than State building should be used to lower it.

*Kind of Homes needed.* — The whole tenor of this report has indicated that the belief of this Commission, in consonance with the law under which it is created, is that "homesteads or small houses and plots of ground"<sup>1</sup> are the kind of homes needed. The five-room house, comprising kitchen, living room, a bedroom for the parents, one for the boys and one for the girls, seems to be the minimum of accommodation for a growing family. Garden plots should differ in size and should be graded from the smallest, possibly 1,000 or 2,000 square feet for vegetables only, up to little farms of from 1 to 5 acres, so that it may be learned how nearly a family can support itself on such a tract of ground.

It may be that in the large industrial centers where concentration of population is inevitable, wholesome tenements are also needed. Many are being built by private capital. Public funds might or might not produce better accommodations at less cost. It is not within our province to consider or report upon that phase of the general question of better houses. It is fair to say, however, that while wholesome dwellings in congested areas have been furnished at low cost, sometimes entailing a burden upon taxpayers, later practice has everywhere tended to the small suburban home. Of these, London up to March 31, 1915, had supplied 3,402; in Ireland about 50,000 have been built; and Germany, Austria, Belgium, Denmark,

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<sup>1</sup> Chapter 607, Acts of 1911.

France, Holland, Hungary, Italy, Norway, Roumania, Russia, Spain, Sweden, New Zealand and the six States of Australia, Argentina, Brazil, Chile and Cuba, have by direct construction or encouragement with loans of public funds caused the erection of so many homes of this character that enumeration is impossible with data now available.

### **8. Communal and Individual Results to be expected.**

1. The new opportunities for employment, usefulness, success and right living constitute the greatest benefit to come from the adoption of the two recommendations made by this Commission, — making every kind of agricultural instruction available to all, and encouraging the creation of a more plentiful supply of suitable homes. Hundreds of thousands of people, — the young who wish to continue in school but have not the means, or who have sought and failed to find work; the ill, the aged or the less efficient; families with declining resources, or who are sick of the depressing influences of the crowded tenements, or with growing children who need opportunities for good air, exercise, play and wholesome experience; young couples seeking a right start in life; the partly derelict, who need another chance, — all would have opened before them new chances, which do not now exist, for honorable, self-supporting lives. Were instruction in agriculture, facilities for following it, and homesteads brought within the reach of all, the opportunities for self-support while acquiring an education would be vastly increased, and there would remain but little excuse for the down-and-outs, or the men or women who sin against society because they “never had a chance.” How great in diminishing wrongdoing will be the influence of good homes, instruction and more ample opportunities for remunerative work it is difficult to conjecture, but it appears to offer hope of a new state of society. So successful have been experiments abroad similar to this that Great Britain is perfecting extensive plans to provide in this way for its returning soldiers and its unemployed after the great war.

2. Such poverty and its ills as arise from lack of suitable opportunity would be sensibly diminished if not entirely abolished.

3. The general adoption of the Commission's recommenda-

tions would tend to alleviate undue congestion of population, and so reduce the vice, immorality, delinquency and inefficiency bred in slum conditions. Of the slums as breeding-places for derelicts, and the effect on delinquency of their abolition, some recent writers with practical experience say:—

The slum as it is known in the great metropolitan centers does not exist in smaller cities; and yet its counterpart is there in smaller duplicate, and we can trace the same evils to it. *For the poorest quarter in every city breeds crime, and to abolish it would be to reduce temptation to a minimum.* Saloons prey upon the run-down tenements; the unemployed and those of irregular occupation are forced to take refuge there; manners are lax and morals often corrupt; upon every side are the influences that insidiously weaken the growing boy, offsetting the training that he is receiving in the public schools for five hours out of the twenty-four.

We need not concern ourselves with the fact that in these slum tenements honest families do live, bringing up their children in the fear of God and the law, as they struggle against adverse economic conditions; or that from them sometimes come boys who in later life rise to distinction. These are exceptions. *The poorest quarter of every city is a recruiting center for the jail, the poorhouse and the asylum,* and the duties of a probation officer call him there with such regularity that he soon comes to look upon it as one of the recognized haunts to which crime may be traced. . . . A child rescued from the vice of a city slum and transplanted in the country may regain the virtue that should be his by right. . . . Very few of our criminals ever come from our farms; and this is true the country over. It is always to the slums that the truant officer goes in search of the boys whose public school attendance has become irregular.<sup>1</sup>

4. A higher average grade of citizenship would be realized. The single-family house owned by the occupant stimulates a better home life than the tenement, and gives a sense of really belonging to the community and having a personal stake in it. The small house is preferred by genuine citizens. The weakening of social ties and moral obligations involved in the frequent changes of tenement life would be avoided, and the incentive to good and useful living would be stronger and more

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<sup>1</sup> "One More Chance," by Lewis E. MacBrayne and James P. Ramsay, p. 82.

constant. But still more important is the fact that the children will be reared in a wholesome environment, in contact with nature, and with ample opportunity both for play and for natural employment. Such instruction and homes as the Homestead Commission's recommendations contemplate would supply them with plenty of chances for useful, enjoyable, healthful and remunerative employment.

5. Should congestion of population be lessened, either rents would decrease or better accommodations would be offered. Should the provision of homesteads be of great extent, the cost of living would be affected to the advantage of the poor. Should considerable numbers of tenement dwellers take advantage of an opportunity to cultivate gardens, or larger suburban or rural tracts, the market demand for such goods as they produced would be lessened and the supply increased. It is not to be expected, however, that the high cost of living would be actually reduced, though the results in New Zealand, which country has had greater experience in the provision of homes than any other, indicates that the movement has checked, but not prevented, a rise in the cost of living. The increase between 1899 and 1914 seems to be about 25 per cent. The figures of increasing cost of living in this country from 1899 to the close of 1913 indicated an increase of 71 per cent. (pp. 10, 11, No. 138, Bulletin of the United States Bureau of Labor Statistics), with a tendency to still further increase. There may be other causes that retard in New Zealand the constantly increasing cost of living, but they are not readily found.

Such are some of the far-reaching and beneficent effects which the Homestead Commission believes may reasonably be expected to follow the adoption and careful, conservative, judicious management and extension of the two policies which it recommends.



**CITY AND TOWN PLANNING.**

The Third Annual Conference of Massachusetts City and Town Planning Boards, called by Governor David I. Walsh and the Homestead Commission of Massachusetts, was held in the State House on Friday, November 12, 1915. There were 31 local planning boards represented. The meetings were opened by an address of welcome by Governor Walsh. Hon. James M. Curley, Mayor of Boston, spoke on "City Planning and the Municipality," and Shelby M. Harrison, Director of the Pittsburg Survey, Director of the Department of Surveys and Exhibits of the Russell Sage Foundation of New York, discussed "First Steps in a City Survey."

Reports were made by representatives of the planning boards.

The following questions were particularly named for consideration: —

1. How promote public interest in and understanding of city and town planning?
2. What are the first steps for a local planning board, looking toward an effective municipal plan?
3. Is further legislation desirable?

A stenographic report of the proceedings of the conference was published as Homestead Bulletin No. 4. Copies are available. The Homestead Commission will be glad to forward them without charge to all who are interested enough to request them.

At the same time a Metropolitan Council of Fifty held in the State House a comprehensive eight-day City and Town Planning and Housing Exhibition, in connection with which an interesting program was published, copies of which may be obtained from this Commission.

At the conference a federation of Massachusetts City and Town Planning Boards was effected, with the following board of officers: —

Harlan P. Kelsey, Salem, *Chairman*.

Charles H. Parsons, Springfield, *Vice-Chairman*.

Arthur C. Comey, Cambridge, *Secretary*.

Joseph Finberg, Attleboro, *Treasurer*.

Executive Board: Chairman, vice-chairman, secretary, treasurer and Charles S. Bird, Jr., Walpole; Flavel Shurtleff, Winchester; Frederick Law Olmsted, Brookline.

In compliance with chapter 494 of the Acts of 1913, 29 cities, 16 towns with a population of more than 10,000, and 5 towns with a population of less than 10,000 have established local planning boards, as follows: —

*Cities which have established Local Planning Boards.*

Attleboro.	Holyoke.	Quincy.
Beverly.	Lawrence.	Revere.
Boston.	Lowell.	Salem.
Brockton.	Malden.	Somerville.
Cambridge.	Medford.	Springfield.
Chelsea.	Melrose.	Taunton.
Chicopee.	Newburyport.	Waltham.
Everett.	Newton.	Woburn.
Fitchburg.	Northampton.	Worcester.
Gloucester.	Pittsfield.	

*Towns of 10,000 Population, with Local Planning Boards.*

Adams.	Methuen.	Watertown.
Arlington.	Norwood.	Westfield.
Brookline.	Plymouth.	Weymouth.
Clinton.	Southbridge.	Winchester.
Framingham.	Wakefield.	Winthrop.
Gardner.		

*Towns of Less than 10,000 Population, with Local Planning Boards.*

Amherst.	Stoneham.	Wellesley. <sup>1</sup>
Hudson.	Walpole.	

The following 6 cities and 9 towns which come under the law have as yet failed to comply with its provisions: —

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<sup>1</sup> Discontinued.

*Cities which have failed to establish Local Planning Boards.*

Fall River.	Leominster.	Marlborough.
Haverhill.	Lynn.	New Bedford.

*Towns of 10,000 Population which have failed to establish Local Planning Boards.*

Danvers.	Milford.	Saugus.
Dedham.	Natick.	Webster.
Greenfield.	Peabody.	West Springfield.

A measure of much importance to the planning movement in Massachusetts was enacted into law by the Legislature of 1916 as chapter 190, General Acts.<sup>1</sup> Under this act a city may create a board of survey, with the same powers that are conferred upon town boards of survey under chapter 191 of the Acts of 1907. Much discussion has arisen as to how plans recommended by local planning boards might be made effective. It was held by many that the planning boards should have power to formulate and adopt plans that would be authoritative after suitable hearings. Others have maintained that planning boards should continue to be advisory, as at present. In the meantime there was serious doubt as to whether a city, or any constituent part thereof, possessed the legal power to enforce a plan if adopted. Chapter 190 removes that doubt and provides a means by which plans may be made effective so as to control future growth and development. The act, however, by no means confers any authority upon the planning boards to make plans effective. It permits the creation of a new board of survey, which board will hold the power to adopt plans. The mode of procedure for the control of future development is given in the act, which among other things states that —

The board of survey may, and upon the vote of the local planning board and the city council or board of aldermen shall, from time to time cause to be made by the city engineer, under its direction, plans of such territory or sections of land in the city as the board of survey or the said planning board may deem necessary. . . .

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<sup>1</sup> For full text of the act see appendix.

The act takes full effect in any city upon its acceptance by vote of a majority of the members of the city council or of the board of aldermen. The act thus authorizes a procedure under which any city may develop and adopt a comprehensive plan which shall thereafter control in the making of both public and private improvements.

An epoch-making decision on city planning was handed down by the United States Supreme Court on January 5 of this year.<sup>1</sup> The decision affirmed a decision of the California Supreme Court, upholding the right of cities to establish residential districts and exclude therefrom various industries. The city of Los Angeles had established such districts, in one of which a brickyard was located. A suit to exclude the brickyard elicited from the courts a decision so broad that the enforcement of city and town plans appears now to be legal beyond question.

A districting commission has completed plans for "districts" for the city of New York. Should the effort to regulate the use of various districts in the metropolis prove successful, and stand the test of the courts, the example will doubtless within a reasonable number of years be followed by all the progressive communities of the country.

Cities and towns to the number of thirty-one furnished the Homestead Commission with reports during the past year. It is intended to publish early in the coming year a comprehensive review of the progress of city and town planning in Massachusetts, including a statement of the work done by each of the local boards.

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<sup>1</sup> *Hadacheck v. Sebastian*, Chief of Police of the City of Los Angeles, 239 U. S. 394.

# APPENDIX.

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## Chapter 185, General Acts.

### AN ACT TO AUTHORIZE CITIES TO MAINTAIN SCHOOLS OF AGRICULTURE AND HORTICULTURE.

SECTION 1. Any city which accepts the provisions of this act may establish and maintain schools for instructing families and individuals by means of day, part-time or evening classes in gardening, fruit growing, floriculture, poultry keeping, animal husbandry, and other branches of agriculture and horticulture. The location and organization of the said schools, and the instruction given therein shall be subject to the approval of the board of education.

SECTION 2. After the acceptance of this act by any city and before further action hereunder is taken, the school committee shall cause to be circulated a description of the purposes and scope of the instruction to be given hereunder, with a request for applications from those desiring such instruction.

SECTION 3. The city council or other board or officer having power to take land for school purposes in any city which accepts the provisions of this act may, in conformity with the provisions of general law relative to the taking of land by municipalities, take in fee any land in said city not already appropriated to public uses for the purpose of maintaining a school hereunder, or may lease or purchase in fee any land, either within or without the city limits, for the said purpose. The school committee of the city may erect suitable buildings upon the land so acquired, and may make provision, on terms that will not involve loss to the city, for the use of plots of ground and for the temporary housing of those attending the school, and complying with its regulations, who have not access to other land suitable for giving proper effect to the instruction of the school.

SECTION 4. This act shall be submitted to the voters in the several cities of the commonwealth at the next annual state election for their acceptance or rejection, and shall take effect in any city if a majority of the voters of that city voting thereon shall vote in the affirmative. The act shall be submitted in the form of the following question to be placed upon the official ballot: "Shall an act, passed by the general court in the year nineteen hundred and sixteen, to authorize cities to maintain schools of agriculture and horticulture and to make provision, in certain instances, for the temporary housing of persons attending the school, be accepted?"

YES.	<input type="checkbox"/>
NO.	<input type="checkbox"/>

[Approved May 9, 1916.]

**Chapter 190, General Acts.****AN ACT TO AUTHORIZE CITIES TO ESTABLISH BOARDS OF SURVEY.**

SECTION 1. The mayor of a city, with the approval of the city council or of the board of aldermen, as the case may be, may, in the month of January in any year, appoint three citizens who shall constitute a board of survey for the city. Of the members first appointed one shall serve for the term of one year, one for the term of two years, and one for the term of three years from the first day of February succeeding the date of their appointment, and thereafter, in the month of January, in each year, one member of said board shall be appointed to serve for the term of three years from the first day of February succeeding the date of his appointment, or until the appointment and qualification of his successor. In case of any vacancy in the board a citizen shall be appointed in the manner provided herein to serve for the remainder of his predecessor's term of office. The city engineer shall act as clerk of the board. The compensation of the members of the board shall be fixed by the city council or the board of aldermen as the case may be subject to the approval of the mayor.

SECTION 2. Any person, firm or corporation proposing to lay out, locate, relocate or construct for public use, any private street or way in a city after the establishment therein of a board of survey under the provisions hereof shall, before opening such street or way for public use, submit to said board suitable plans and profiles of the street or way, so prepared as to show also the method of drainage of the adjacent or contiguous territory, all in accordance with such rules and regulations as the board may prescribe. Upon the receipt of the said plans, with a petition for their approval, the board shall give a public hearing thereon after giving notice of the same by publication once in each of two successive weeks in a newspaper published in the city, the last publication to be at least two days before the hearing; and after the hearing, the board may alter such plans and may determine where such streets or ways shall be located and the width and grades thereof, and shall so designate on said plans. The plans, as approved or modified by the board, shall then be signed by the members of the board, or by a majority of them, and filed in the office of the city engineer who shall attest thereon the date of filing; and thereafter no street or way in the territory to which the plans relate shall be laid out or constructed except in accordance therewith, or with such further plans as may subsequently be approved by the board.

SECTION 3. The board of survey may, and upon the vote of the local planning board and the city council or board of aldermen shall, from time to time cause to be made by the city engineer, under its direction, plans of such territory or sections of land in the city as the board of survey or the said planning board may deem necessary, showing thereon the location of such streets or ways, whether already laid out or not, as,

in the opinion of the board, the interest of the public may or will require in such territory, showing clearly the direction, width and grades of each street or way, and a plan of drainage, and said board may incur such expenses as it may deem necessary therefor, not exceeding the amount of money appropriated by the city for the purpose. Before causing such plans to be made the board shall give a public hearing thereon, which shall be advertised in the same manner as the hearing required in section two, and shall, after the making of any such plan, give a hearing thereon, advertised in like manner, and keep the plan open to public inspection for one month after the first advertisement of the hearing. After the hearing, and after any alterations deemed necessary by said board have been made therein, the same shall be approved, signed, marked, filed and attested as provided in respect to the plans mentioned in section two of this act.

SECTION 4. The board of survey may from time to time make a new plan or plans to take the place of any plans that may be filed in accordance with the provisions of sections two and three of this act, or may make changes on any plan or plans so filed: *provided, however*, that any action involving new plans or changes in plans already duly attested and filed shall be made only after the notice and hearing, and in all other respects, in the manner specified in section two; and the last plan so made, or the plan with the changes last made thereon and duly attested and filed, shall be the official plan governing the future development of the territory affected.

SECTION 5. The powers of the city government in regard to highways shall not be abridged by this act in any manner, except as provided in this section, and the powers conferred by this act shall be in addition to the powers now possessed by them. No street or way in the city, shown on any plan filed as aforesaid, shall hereafter be laid out, located anew, altered or widened, and no such street or way whether already or hereafter laid out, shall be constructed by any public authority except in accordance with any plan that may have been duly attested and recorded under the provisions of this act. If any person or corporation shall hereafter open for public travel any private way, the location, direction, width, grades and plan of drainage of which have not previously been approved in writing by the board of survey in the manner provided in this act, then neither the city nor any other public authority shall place any public sewer, drain, water-pipe or light in, or do any public construction work of any kind, or make repairs, on such private way: *provided, however*, that the provisions of this act shall not prevent the laying of a trunk sewer, drain, water or gas main if the same be required by engineering necessities for the accommodation of other territory.

SECTION 6. The city may from time to time appropriate sums of money to be expended by the board of survey in carrying out the provisions of this act; but no expenditures shall be made in excess of such appropriations.

SECTION 7. Said board of survey, its officers and agents, may, so far as they deem it necessary in carrying out the provisions of this act, enter upon any lands and there make examinations and surveys, and place and maintain monuments and marks.

SECTION 8. This act shall not be construed to authorize the taking or condemnation of land, nor to authorize a city to lay out or construct any way which may be located on any official plan until such way has been laid out as a highway under such other provisions of law as may be applicable; nor shall this act be construed to render a city liable for damages except such damages as may be sustained under the provisions of section four by reason of the making and filing of any new plan or plans or by reason of changes made in any official plan already duly attested and filed, and for such damages as may be sustained by reason of the acts of the board of survey, its officers and agents under the provisions of section seven. Any person who fails to agree with the city as to the amount of damages sustained by him may on application at any time within one year after such entry or act complained of have such damages assessed and determined in the manner provided by law in the case of land taken for the laying out of highways.

SECTION 9. This act shall take full effect in any city upon its acceptance by the affirmative vote of a majority of the members of the city council or the board of aldermen, as the case may be, present and voting thereon. But so much thereof as authorizes its submission to the city council or board of aldermen shall take effect upon its passage. [*Approved May 10, 1916.*]









